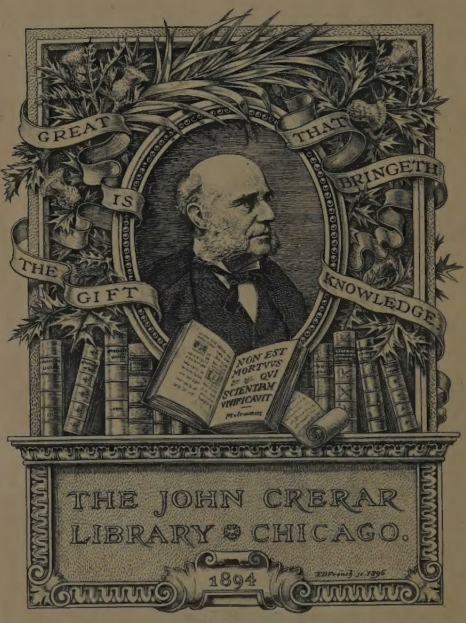
THE LANDSCAPE GARDENING BOOK

GRACE TABOR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A realization of the ideal that is rarely complete, with rugged natural conditions furnishing the motif; note the harmony of near and distant skyline; of construction materials; of mass, producing light and shade

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THE LANDSCAPE GARDENING BOOK

WHEREIN ARE SET DOWN THE SIMPLE LAWS OF BEAUTY AND UTILITY WHICH SHOULD GUIDE THE DEVELOPMENT OF ALL GROUNDS

BY

GRACE TABOR

PHILADELPHIA
THE JOHN C. WINSTON COMPANY
1911

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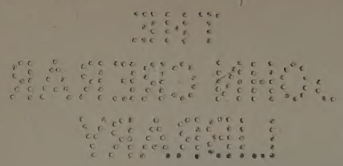

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CHAPTER I

Introduction

GARDENS do not happen. A Garden is as much the expression of an idea as a poem, a symphony, an essay—a subway, an office-building or a gown! But ordinarily we fail to recognize this until the actual work of evolving a garden lies before us.

And even then the truth is not always revealed, as witness the uncertain efforts which are made—the aimless setting of things into the ground here and moving them afterwards to there—the lack of coördination everywhere evident around the greater number of places.

It is as if the bricks and mortar and wood which, properly combined, will make a house, were assembled on the ground and then arranged by the builder in some sort of way, without a plan or any specifications to guide him. Something would result, of course—but who could foresee the form of that something? Not even the builder himself could know what the finished appearance of the thing which he was constructing, might be. And certainly there would be very little chance of such a dwelling—if dwelling it proved to be—being either practical or beautiful.

The analogy is extreme perhaps, yet who that has tried, or is trying, to develop his place, and has felt the sense of bewildered

helplessness which sometimes overwhelms his aspirations, will say that it is exaggerated? To succeed in only having trees and shrubs and flowers instead of a Garden—is it not a common experience?

Yet a Garden is what we all want. The vague disappointment in an effect, the feeling of incompleteness, of falling short of what we hoped for and were seeking to attain, all of these are the indication of that desire for a definite something—a something so subtle that to express it in words often eludes us, though we may feel it ever so keenly.

Observing that "when ages grow to civility and elegancy, man comes to build stately sooner than to garden finely; as if gardening were the greater perfection," Bacon went, as usual, straight to the heart of the matter. For gardening *is* the greater perfection. Distinguished by refined subtleties that may escape even a keen perception, it is probably more elusive than any other art; but it is by no means indefinite nor incapable of analysis on this account.

That we fail to attempt such analysis usually comes from our failure to appreciate the necessity for it—from lack of a true conception of the art. But without such analysis, and the definite understanding which it brings, it will rarely happen that even the most enthusiastic attempts succeed.

Suggestions for such analysis are the aim of this volume—to help in Garden Making rather than in gardening. There is a vast difference; though it is not to be expected that one may do the former without learning the latter. Many books, however, which deal with gardening in all its branches, are to be had for the asking. Therefore plant culture is only touched upon here. Indeed, so highly specialized a subject has properly no place here, demanding, as it does, volumes devoted to it alone.

An erratic old overgrown garden, closed in with a lattice; the arch is too shaded for vines now but remains to span the walk and make a pleasant part of the whole

Here is a garden to be lived with; the road is beyond the house, the shelter above the well is the central feature

The arrangement of the book seeks to offer means for the solution of the garden maker's problems in the order in which they present themselves to him. Each of these is analyzed rather than solved, the solution being obviously something which must be individually decided upon, according to individual circumstances.

The standards which are universally acknowledged by the greatest students of the subject, are carefully maintained, and explained and accounted for, so far as space and conditions will permit. Examples are given to suggest the manner of applying the knowledge which analysis furnishes.

Lists of all kinds of trees, shrubs and flowers, designed to be of definite, practical value, are given. To this end they have been broken up into groups containing only a few of each, the arrangement of the groups being made with a view to their use as units. Thus the wants of the garden maker who has room for only a handful of plants, as well as the one who may do work on a forestry scale, are met. And the confusion which besets a layman upon reading over the names of fifty desirable perennials—all equally desirable, to judge from their description—in an attempt to choose something to plant in a ten-foot border, is thus, it is hoped, avoided.

The lists follow each chapter and are complementary to the chapter, as far as it is possible to make them so. That they contain all the desirable plants in the special classes which they represent is of course not claimed for them. They could not, possibly, and keep within a rational limit. That they contain the most desirable plants in the successive classes, some will no doubt question; for many favorites are indeed omitted. But that they comprise a wise selection for the actual beginner can hardly be denied—and this is the important thing. To this

standard they have been held, and by it they have been tested, and cut down, and simplified, until they are what they are.

Many native flowers—"wild flowers" still, some of them—are included, preference being given to these wherever conditions allow, and whenever an effect will be equally as good with them. The height of each plant, wherever height matters, the color of its flowers, the form of its inflorescence, and the time of bloom, are given, with comments based on each plant's native habit, on soil and other features. Suggestions as to the method of planting and the best means of securing the plants have also been made, and any special requirement or peculiarity of an individual has been mentioned.

To the end that all of this matter might be fully presented, the lists have not been arranged in tabular form. Botanical names are given precedence over the vernacular, but the common name follows closely and identifies the plant, if it need identification. The index includes both.

The lists and the diagrams of plantings may be used literally, or they may be used as suggestions only. Combinations may be formed of several of them, for extensive plantings; or one group may be adapted to a large area by increasing the numbers of each kind of plant which it contains. Where this is done it is better to increase greatly the number of two or three kinds and let them dominate the group, rather than to increase the number of each kind equally. Those marked with an asterisk are the best to plant in greatest number, in each group. Many of a few kinds are always better than many kinds—and constant restraint is necessary in planting, else the lovely simplicity will be lost, and the beauty of line and mass destroyed completely.

Go slowly; practice rigid self-denial in the matter of varieties; learn, by stern discipline, resignation to the unalterable fact that

Formal gardens of simple design, framed with a high border and a vine-covered lattice or well constructed fence may be developed on even a very small place

Natural conditions provide the motif here with a result that is magnificently simple and dignified, breathing rest and repose

everything will not go into one garden. When this is learned, then—and not till then—it is possible to go cheerfully ahead in the happy task of making the most out of what may be put there. And then the Garden Making will have grown to be a joy.

CHAPTER II

Utilizing Natural Features

EVERY plant in the world that springs up naturally in any spot, has selected that particular spot because it finds there the conditions of light and air and moisture best adapted to its needs. In other words, you will find that every square foot of soil all over this round earth is covered by the vegetation that likes that particular kind of soil and location—and other things will not grow there without a struggle.

Of course this is the statement of a perfectly obvious fact—yet it is not so very long ago that the owner of a charming country home complained to me of the fruitlessness of all his efforts to establish a smooth and conventional lawn at one side of his house "because water would settle there in spite of all that he could do." Subsequent investigation revealed a group of little springs under the fine old trees—Nature's marvelous provision for a multitude of wild, elusive things of exquisite beauty which defy domestication in the ordinary garden.

He gave up trying to defeat Nature's purpose by filling in what he had always regarded as a miserable, low, wet, soggy area and, taking Nature's hint, he now has a lovely and unusual bit of garden where pitcher plants, orchids, trilliums, iris and ferns mingle genially with other less familiar bog-loving things. The whole is deftly inclosed and hidden from the outer world by

a grouping of marshmallow and tall, reedy grasses; and not the least of the joys of this garden is its startling unexpectedness.

All of which points a moral, does it not?—a moral that leads to a certain very definite rule, which I would urge every maker of gardens, actual or expectant, to learn by heart and deeply to impress upon his inner mind. Here it is, briefly and simply: *Plan and plant a garden always along the line of least resistance.*

What with the rain when it ought to be dry and the drought when it ought to rain; the slugs, and the blights of varying form but unvarying fatality; the moths, and the bugs, and the beetles, and the borers, and all the other unpleasant things which lurk around, determined to evade the wariest and the wisest of those who plant either for pleasure or profit, gardening is one of this life's most tantalizing uncertainties, the best way we can fix it. Therefore we owe it to ourselves and to the patch of ground we seek to beautify, to mitigate this unhappy state of affairs as much as lies in our power—to make our heads save our hands and our backs, and incidentally our garden hopes—by teaching us to garden according to Nature's laws instead of against them.

So we come to the question which should always be the first consideration: what has Nature done with the land where you are going to build your garden? Before a stone or brick of a building is laid or even the style of the house is determined upon, this should receive attention; for on a property of any size at all it governs not only the kind of garden one is to have but also the location of the buildings and their "kind."

A wild garden ought not to be actually under one's windows, while a formal garden very appropriately may—and the set of conditions which calls for the former imperatively, will, quite as imperatively, preclude the possibility of the latter, or vice versa, thus affecting the position of both house and garden. Plan

therefore, if possible, before any building is done, both the house and the garden. Take every natural feature and peculiarity of the land, topographical or otherwise, into consideration.

Is it rocky or is it stony?—there is a big difference. Is it wet or dry? Is it hilly or flat? What is the nature of its soil? What can be done with it *most easily and simply?* What is the line of least resistance?

The very hopelessness of changing things where great boulders and shelves of solid rock thrust themselves up through the earth, prevents the possessors of such land, usually, from even trying. They are convinced from the beginning that nothing will grow there, so what is the use of attempting to make it? That is, they are likely to be thus convinced, if they are unfamiliar with plants.

There are a great many things that will grow there, however—not what is seen in common gardens to be sure, but is that not in their favor? Distinctly rock-loving plants must have the conditions which they like, and these cannot be supplied them everywhere. You are fortunate if your location affords them.

Such species are spoken of sometimes as "alpines," but this is incorrect. True alpines are too difficult for the amateur to attempt to grow, as they are at home only above the line where trees and shrubs cease, high up in the mountains. Make your selection from the long list of rock-loving plants that do not need the high altitude—the simple, easily grown, hardy and charming things which almost any good nursery carries in stock. These, with suitable ferns and mosses, which you may find already growing among the rocks, will supply the needs of such a situation perfectly.

The arrangement of such a garden should of course conform to Nature's grouping; there should be no attempt at precision,

either among the plants or in the walks or paths, and the look of extreme tidiness which spoils everything but the most formal plan, should be avoided like the plague. Keep out the weeds, but do not trouble about stray wildings that may take up their abode among your treasures. There is as much beauty in common toad-flax as there is in many highly prized aristocrats of the flowery kingdom—and long feathery grasses are more in keeping with rock or wild gardening than closely cut, trim turf; likewise edges should never be sharply defined nor trimmed.

Stony land requires rather more consideration in the planting than in the planning, and is therefore to be considered more especially from the horticultural point of view. There is one thing to be remembered in dealing with it, however, and that is that any attempt at formal design will almost certainly result in failure, no matter how carefully it may be planned. The reason for this is that the stones are thicker in some places than in others, and the soil cannot conserve moisture equally and evenly. Consequently the plants will not grow at an even rate—which they simply must do in a formal design. Otherwise the lines and the proportions will soon be utterly lost.

Of the bog garden on wet land I have already spoken. If there is so much water that it lies on the surface constantly, it is better to dig out enough earth at the lowest point to make a pool, even though it is a very small one. This will give the birds a bathing place, besides furnishing an opportunity to grow one or two real aquatics, as well as the other things which love dampness, though they do not actually live in water.

If this pool can be located in the open where it will catch the sunlight, have it there by all means rather than in the shade. A shaded bit of water is sometimes gloomy and depressing, but water in the sunlight has just the opposite effect—it is all light

and cheer—and cheeriness is essential to the success of any sort of garden.

Stock the pool with a few goldfish—or something more ordinary if these cannot be had—to keep the mosquito larvæ down; and you will have a garden infinitely more interesting than the conventional lawn would be, at much less than it would cost, both in labor and money, in such a situation.

Uncleared land, full of rank underbrush and wild growths, is not common, because one of the first things that an up-to-date development company does is clear away every scrap of growing thing. Even the trees are not always spared. But now and then one does come across such a plot and it is a great piece of good fortune, if handled properly.

Leave the wild growth along its boundaries and let it form the backing for whatever shrubs you may wish to plant, instead of mowing down and digging out every thing on the place. Many times there are shrubs which, left to grow, will develop into as fine specimens as anything you may buy—and the advantage of having them native is immense.

Common elder is much used in shrubbery borders by the best landscape architects, also sumach, which grows so freely wild. Cornels and viburnums between them furnish more—and more pleasing—varieties for general landscape work than any other two species in the world, and both are to be found in almost any patch of woods or underbrush. The native ivy which some call Virginia creeper and others know as woodbine, clambers about luxuriantly very often, over all the rest.

One should, of course, learn to distinguish this from the noxious poison ivy, before venturing to handle or plant. To the casual observer they resemble each other very much, though as a matter of fact there is very little likeness between them.

The creeper has five leaflets to the leaf—with comparatively rare exceptions—while the poisonous plant has only three. Avoid, therefore, all tri-lobed climbers. The creeper is a charming, graceful thing, and it may be trained over anything you wish by giving its twining tendrils something to clutch.

Little Jack-in-the-pulpits spring up under foot in such a place, and often there are lovely ferns hidden away under the rest, if you look carefully for them. Keep the character of a spot like this unchanged and bring in wild flowers rather than the usual garden favorites. And here, as on stony ground, make no attempt to carry out formality of design. Nothing is lovelier than architectural gardens, in their own distinct and proper place—but unsuitably placed they are an abomination.

Even a very gentle slope affords a charming variation in a garden, while a hillside is a fascinating site for both house and garden. Yet not infrequently, with the former at least, elaborate grading is resorted to, to level the place up; which is proof of our unhappy bondage to a conventionality that stifles all original ideas. Unless the slope is so steep as to be actually impassable, not a particle of grading is necessary. If the getting up and down is too much of an effort, a very little cutting and filling will break it into terraces, which not only make every part accessible but also give a succession of levels, along which walks may be carried from which to view the whole.

Where this plan is adopted bear in mind that the entire garden, whether seen from above or below, is seen at once, unless screens of planting are introduced. The design may be formal or not, according to outlying conditions, the style of the dwelling, the owner's taste, and the evenness of the slope. But land which descends sharply at one point and slopes off gradually at others is obviously not ready-made for an architectural design to be

carried out upon it; therefore the line of least resistance takes us to the informal, rambling, quaint, and unexpected upon such a site.

On the other hand, an even, smooth slope seems to demand the classic treatment; but the house in this case must conform to classic standards as well, else the place is in danger of becoming a ludicrous anomaly. This does not necessarily mean a dwelling patterned after an Italian palace, however. The simple old white houses of New England are classics quite as truly as any Grecian temple—and in the midst of their prim, old, box-bordered little gardens, they present far saner and safer models for us generally, than those which many are too prone to follow.

Where the environment of a place is that of the usual suburb, and the house is not distinctly unusual, some adherence to formal lines is better than utter disregard of them. Formal lines afford a transition from the work of Nature to the work of man which harmonizes the two; and they may be restricted to the most limited area without loss to the design. Attempts at broad, sweeping lines in the planning of a typical suburban place are a great mistake, under any but exceptional circumstances.

Park-like effects require acres where the suburban plot measures square yards. Efforts to secure such effects within such limits only result in making a place seem smaller than it actually is. Boundaries and corners may be somewhat thickly and irregularly planted, but along the approaches to the house regularity should rule, whether it be a turf edge, a row of flowering shrubs, or a border of perennials.

Not many places, perhaps, have the features that have been here dwelt upon—features that are commonly held to be distinct disadvantages, and which sometimes lead to the rejection of land

because they are present—yet natural variations in even small plots are not uncommon. No matter what these may be, be sure that they are *never a disadvantage* if you are willing to study them a little, and think and plan. They mean an individuality for the place, if they are carefully made its motif, which can never be achieved by the most cunningly contrived artificial means.

LISTS OF PLANTS

ROCKY LAND

This list includes plants which may be used where natural ledges of rock project through the earth and the soil is thin; or where similar conditions have been artificially created. They are what are commonly termed "rock garden plants." Special pockets of soil may be prepared for special requirements, under the latter circumstances particularly; but where the natural condition exists it is seldom necessary to alter the soil. Plants are arranged in the order of their flowering. Those marked with an asterisk should be planted the more freely.

IN FULL SUN

1—*Arabis albida:* rock cress; four inches high; adaptable to any dry soil; dense green carpet-like growth; masses of small, white flowers; fragrant; may be raised from seed, sown and transplanted, or sown where it is to grow; blossoms in April and May.

*2—*Papaver nudicaule:* Iceland poppy; twelve inches high; light, loamy soil, fairly rich; foliage at the ground, the flowers raised on straight, leafless, wiry stems; colors clear yellow, orange, and also a white; grown easily from seed, which must be sown where the plants are to stand, as pop-

pies do not transplant successfully; may not bloom until the second year unless sown very early; blossoms in May and, if cut freely, on to October.

3—*Helianthemum vulgare* (or *H. mutabile*—this is a variety of *vulgare* and the name most commonly found in catalogues): rock rose or sun rose; six inches high; will thrive in poor soil but should be planted in a protected place, with southern exposure; growth is nearly evergreen, forming thick mats; profusion of flowers, yellow in *vulgare*, pink and pinkish white in *mutabile;* buy plants; blossoms in hot weather—usually June or July.

4—*Geranium sanguineum:* cranesbill; eighteen inches high; ordinary soil; erect-growing, branched plant, foliage attractive and loose; single, large crimson flowers; may be raised from seed, sown outdoors; easy to naturalize; blossoms from June to August.

*5—*Sedum Sieboldii:* stonecrop; six to ten inches high; sandy soil, which must surely be dry in winter; branches growing up, then curving downward; the round leaves are bluish with a rosy tint at the margins; flowers rose-colored; may be raised from seed but it is better to buy plants; blossoms in August.

6—*Silene maritima, flora plena:* seaside catchfly, double-flowered; trailing, and must be planted where its stems may hang over a ledge of rock; ordinary sandy loam; white flowers which weight the branches down; this does not produce seed, therefore it is necessary to buy the plants; blossoms in July and on.

IN SHADE

1—*Camptosorus rhizophyllus:* walking-leaf fern; fronds four to eight inches long, evergreen, growing in tufts and taking root at the tips when they touch the ground; requires black soil made of leaf mold, and a place at the margin of rocks which are *always shaded;* buy clumps.

2—*Saxafraga Virginiensis:* rockfoil; four to ten inches high; dry soil in a cool, shady place, where the intense heat and drought of summer cannot reach; foliage low and rosette-like; cymes of many small white flowers; buy plants; blossoms in April.

3—*Mitella diphylla:* bishop's cap or mitrewort; six to eight inches high; soil of rich woods; delicate white flowers in slender racemes; buy plants; blossoms in May.

*4—*Gentiana acaulis:* stemless gentian; four inches high; likes a deep soil, quantities of moisture with *thorough drainage* and a cool location; crushed granite, rich loam, and meadow soil in equal parts make up a compost for it; clear dark blue flowers—the celebrated gentian of the Alps; plants are obtainable but they are likely not to live as they seem to resent transplanting; may be raised from seed indoors and transplanted when very tiny; it requires patience as the seeds sometimes are a year in germinating, but when once established this is a very permanent thing, and a delight; blossoms in May and June.

*5—*Galax aphylla:* coltsfoot or beetle-weed; six to twelve inches high; soil of humus and leaf mold, in a northern aspect, cool, moist and shady; leaves shining and leathery, heart-shaped, evergreen, coloring to beautiful bronzes and reds in winter; wands of delicate white flowers, lifted on

leafless stems well above the plant; buy plants; blossoms in July.

*6—*Campanula rotundifolia:* true harebell or bluebell; twelve inches high; any fair soil in a rock crevice that is well drained; bright blue flowers; easily raised from seed, sown indoors in early spring and transplanted; blossoms in July and August.

SHRUBS

*1—*Rhus aromatica:* fragrant sumach; usually about three feet high but sometimes reaching eight feet; any soil; especially good for dry and rocky banks, in sun or shade; yellow flowers in clusters on short spikes; fruit coral-red; buy plants; blossoms in spring before the leaves appear.

*2—*Arctostaphylos Uva-Ursi:* bearberry; prostrate, forming a mass two feet in thickness; well drained light loam or sandy soil, on rocks and banks; evergreen; flowers small, white, in terminal clusters; red berries follow; buy plants; blossoms in May.

3—*Comptonia asplenifolia* (or *C. peregrina*): sweet fern; one to three feet high; sterile, dry soil, among rocks; foliage fern-like and fragrant; buy plants; brown catkins of inconspicuous flowers in May and June.

*4—*Daphne Cneorum:* garland flower; trailing, forming a mass twelve inches in thickness; light and well drained soil, in partial shade or all sun; leaves small, glossy and evergreen; many clusters of small pink flowers, very fragrant; buy plants; blossoms in early May and at intervals through summer.

5—*Hypericum prolificum:* St. John's wort; three feet high; sandy or rocky soil, all or partly shaded; stout and dense,

leaves glossy and dark green; yellow flowers in profusion, in cymes; buy plants; blossoms in July and on to September.

6—*Juniperus Sabina, prostrata:* prostrate juniper or cedar; eighteen inches to three feet high, prostrate branches; dry rocky or gravelly soil will do though a fairly moist sandy loam is preferred, in a sunny and open situation; usually the branches are long and trailing, and numerously branched; evergreen foliage, bluish-green; buy plants.

STONY LAND

Some of the plants listed here are useful in rock gardening also; but the distinction here made between stony land and rocky land is such that they fall naturally under this head. Stony land means earth which has been deposited under glacial action and is full of boulders and round stones. It is sometimes dry and sometimes quite moist; not infrequently springs abound; it is usually well drained however, owing to the presence in it of so much loose matter.

IN FULL SUN

1—*Dicksonia punctiloba:* hay-scented or gossamer fern; one to two feet high; dry soil or moist soil well drained; delightful when massed in open places, the plants set eight inches apart; buy plants or clumps.

2—*Phlox subulata:* creeping phlox, ground or moss pink; four to six inches thick, creeping, tufted and forming dense mats; dry and sandy banks, up to and around stones and boulders; perfect ground cover, moss-like in effect; sheets of white and rosy red flowers—the white form, shaded to pink, is the best; buy plants; blossoms in May.

*3—*Aquilegia chrysantha:* golden-spurred columbine; three feet high; sandy, moist, well drained soil; many and large flowers, yellow tinted with deep red; may be raised from seed easily; blossoms in May or June and remains long in flower.

4—*Saponaria ocymoides:* soapwort; six to nine inches high, trailing; easily established in any soil; loose cymes of bright pink flowers; seeds or plants; blossoms in June.

*5—*Asclepias tuberosa:* swallow wort, pleurisy root or butterfly weed; eighteen inches to two feet high; any well drained soil; is a member of the milkweed family; bright orange flowers, in numerous umbels; plants or seed; blossoms in July and August.

*6—*Liatris pycnostachya:* prairie or Kansas gayfeather; three to five feet high; any soil, even very poor; long dense spikes of purple-red flowers; raise from seed, sown in the autumn early enough for plants to get a start before frost; blossoms in August and September.

IN SHADE

*1—*Anemone nemorosa:* wood anemone; four inches high; rich, well drained, sandy loam; single white flowers tinged with purple; will not mind some sun; buy plants; blossoms in April and May.

2—*Sanguinea Canadensis:* bloodroot; six inches high; light rich soil; solitary white, pink-tinged flowers, one to two inches across; will stand sunlight; buy plants; blossoms in April and May.

3—*Dodocatheon media:* shooting star, American cowslip or American cyclamen; twelve to twenty-four inches high; open, moderately rich soil, not dry but well drained and

cool; leaves clustered at the ground, flower stem erect; flowers rose and white, in loose umbels; leaves die down after flowering season is over; plant maiden-hair fern—*Adiantum pedatum*—or wild ginger—*Asarum Canadense*—between and among the plants of *Dodocatheon*, to take the place of its short-lived foliage; buy plants; blossoms in May and June.

4—*Smilacena racemosa:* false Solomon's seal; eighteen inches to three feet high; moist loamy soil; stems rise from the ground, are not branched, and the plant is flexible and pliant, making a graceful mass when planted in numbers; white flowers clustered in panicles along the stems with the leaves; blossoms in June and July.

*5—*Sedum spectabile:* showy sedum or stonecrop; eighteen to twenty-four inches high; said to prefer a rather heavy soil but this is not essential, though good drainage is; rose-purple flowers in broad, flat cymes; buy plants; blossoms in August and remains in bloom until October.

*6—*Aster corymbosus:* native wild aster; two feet high; dry rock soil; loose corymbs of characteristic small white flowers; may be raised from seed readily; blossoms from August on to frost.

SHRUBS FOR UNCLEARED LAND

This list gives the careless forms of native growth which will harmonize with the character of rough land, and with the natural growth allowed to remain as a backing for the planting. These may also be used in stony localities.

1—*Amelanchier Canadensis:* common shadbush, Juneberry or service berry; tree-like, fifteen to thirty feet high; white flowers in loose clusters; fruits in June, sweet and edible;

buy plants; blossoms very early in the spring, sometimes before the leaves appear—usually early April.

*2—*Berberis vulgaris:* common barberry; from four to eight feet high; many small, bell-like, bright yellow flowers, pendant along the branches; fruit abundant, bright red, ornamenting the bush during much of the winter; blossoms in May and June.

(This is not native but has escaped and is naturalized in the east.)

*3—*Viburnum opulus:* highbush cranberry; twelve feet high; tiny white flowers in cymes four inches in diameter; fruits scarlet, remaining all winter; buy plants; blossoms in May and June.

4—*Sambucus Canadensis:* common elder; twelve feet high; flowers white, in large flat cymes, very fragrant; fruit is ornamental and useful; buy plants; blossoms in July.

5—*Rhus glabra:* smooth sumac; ten to twelve feet high; flowers greenish-pink, in characteristic terminal panicles; foliage a gorgeous color in autumn; buy plants; blossoms in July.

*6—*Clethra alnifolia:* sweet pepperbush; eight to ten feet high; likes a moist sandy soil; white flowers in erect, pyramidal spikes; very fragrant; buy plants; blossoms in August and late summer.

BOG LAND

Wet, marshy spots where water settles, or where springs are numerous, is the sort of land referred to here. The banks of lakes often present the same conditions. Peat bogs are rich in the decomposing mosses which flourish there; for this reason they are somewhat different from ordinary bog land, and plants which are native to them are especially mentioned as peat bog dwellers.

This lily-pond was made by excavating a low, wet area, the boundary treatment is exceptional in that it shows no stone or cement rim but is absolutely true to Nature

Gardens are seldom made under more adverse conditions, yet here the steep slope and restricted area have actually been the means of developing a place of great charm and distinction

IN FULL SUN

1—*Hellonias bullata:* swamp or stud pink; leaves clustered at ground; flower stalk eighteen to twenty-four inches high; flowers in three-inch racemes, pink or purple; grows in both sun and shade but always in wet bog earth when in the sun; it may be used in drier situations in the shade; buy plants; blossoms in April and May.

*2—*Iris pseudacorus:* yellow iris; two feet high; any marsh soil; foliage showy; flowers large, bright yellow; plants or roots, only; blossoms in May and June.

3—*Sarracenia purpurea:* pitcher plant; flower stalk six to eighteen inches high; leaves erect, six to twelve inches long, deep purple; peat bog land; flowers large, purple; plants only; blossoms in May and June.

4—*Osmunda regalis:* royal fern; may be planted under two or three inches of still water, setting the plants so that the crowns are just above water; plant two to three feet apart where many are used; fronds two to six feet high; will bear partial shade.

*5—*Lobelia cardinalis:* cardinal flower; two to four feet high; wet places, along the borders of pond or brook, or in water two to three inches deep; scarlet flowers in large, showy, close, terminal spikes; buy plants; blossoms in July and on to September.

*6—*Hibiscus Moscheutos:* swamp rose mallow or marsh mallow; three to five feet high; along streams or in marsh land anywhere—even salt marsh; large rose-pink flowers in profusion; buy plants; blossoms in August and September.

IN SHADE

*1—*Caltha palustris:* marsh marigold; ten to fifteen inches high; may be planted at edge of stream, in bog, or in water two

to four inches deep; flowers bright golden-yellow, sometimes two inches across; buy plants; blossoms in spring and on to June.

*2—*Cypripedium spectabile:* showy lady's slipper (a native orchid); two feet high; flowers white and rose-purple; buy plants; blossoms in June.

3—*Calopogon pulchellus:* native orchid; twelve to eighteen inches high; at edge of bog; flowers pink-purple, at ends of leafless stems; buy plants; blossoms in June and July.

4—*Veratrum viride:* Indian poke or native white hellebore; two to five feet; moist or wet black peat soil; flowers small, yellowish-green; foliage effect is its especial feature; buy plants; blossoms in July.

5—*Habeneria ciliaris:* yellow fringed orchid; eighteen to twenty-four inches high; spike of brilliant yellow flowers, borne at the top; buy plants; blossoms in August.

*6—*Gentiana Andrewsii:* closed or bottle gentian; eighteen to twenty-four inches high; rich, deep, stony soil, along the banks of stream or pool; flowers bright blue, closed; buy plants; blossoms in August or September.

SHRUBS

1—*Pyrus arbutifolia* (or *Sorbus arbutifolia*): red chokeberry; four feet high and up; damp thickets and swamps; flowers white, tinged with red, in corymbs; red and ornamental fruits follow; buy plants; blossoms in April and May.

*2—*Ledum latifolium:* Labrador tea; two to three feet high; swampy places, sandy and peaty soil, sun or part shade; clusters of white flowers; evergreen—the leaves are said to have been used during the Revolutionary War for tea, hence the name; buy plants; blossoms in May and June.

*3—*Rosa Carolina:* wild rose; eight feet high, slender and upright; swampy and moist ground; flowers single, pink, in clusters sometimes, two inches in diameter; buy plants; blossoms in June on to August.

4—*Ilex verticillata:* black alder or winterberry; eight feet high or more; wet places and swamps, though it grows elsewhere also; flowers tiny and unimportant; scarlet fruits remain on all winter; buy plants; plant one staminate plant to a group, specifying that all the others shall be the pistillate or fruiting form; set the former in the midst of the latter; blossoms in June and July.

5—*Azalea viscosa:* clammy azalea or white swamp honeysuckle; four to eight feet high; at home in sandy swamps; flowers white, tinged with red, not large but abundant and very fragrant; buy plants; blossoms in June and July.

*6—*Cephalanthus occidentalis:* buttonbush; four to twelve feet high; sandy moist soil or marsh; foliage glossy; tiny white flowers in perfect balls; buy plants; blossoms in July and on.

AQUATICS

Water plants for the pool or stream which is, perhaps, the heart of a bog. These are hardy and may remain out all the year around, if they are planted below the frost line—that is if their crowns are below it. Plantings of these may be made by pushing the roots into the mud, or by tying a stone to them and throwing them out into a pond or pool, if the depth is too great to allow of the other method. These always require full sun.

1—*Peltandra Virginica:* water arum; plant twelve inches deep in the mud, under water one foot deep, near the margin of the pond; leaves four to six inches long, raised twelve inches above the water. suggest the leaves of a calla; flowers

greenish and curious; buy plants; use from one to three plants for a clump; blossoms in June.

2—*Nymphæa odorata:* common sweet water lily; floating; flowers white and very fragrant, open for three days, from sunrise until noon; buy roots; plant in quantity, eighteen inches apart; plant from April to September, by pushing the root into the soft mud until it is covered; one foot of water over it is enough at first; when one or two floating leaves appear this may be gradually deepened in artificial pools; when planting in a pond or large body of water, tie roots to a stone as suggested; blossoms in June and on to September.

*3—*Limnanthemum lacemosum:* floating heart; may be planted in still water five feet deep, though two feet is better; creeps or floats on water surface; foliage mottled and attractive; yellowish-white flowers are abundant, small and dainty; plant in colonies; buy plants or roots; blossoms in July and August.

4—*Brasenia peltata:* water shield; plant in from two to six feet of water; floating; greenish and purplish leaves two to three inches across—useful for variety in foliage effect; flowers inconspicuous, dull purple, at surface of the water; blossoms in June and August.

5—*Pondeteria cordata:* pickerel weed; rises eight to twelve inches above the water surface; grows in still or slightly moving water about one foot deep; flowers blue, small, in dense, short spikes; buy plants and plant in colonies; blossoms in July and September.

*6—*Nymphæa pygmæa* (*N. tetragona*): dwarf water lily; floating; leaves dark green with brown blotches; flowers white, one to one and one-half inches across, freely produced, open for

three or four days, from noon until sunset; buy roots; plant as directed for *Nymphæa odorata*, using many roots for a colony, as this does not spread at the root; blossoms in July, August and September.

Submerged aquatics (these should always be used to aerate the water in still ponds):

1—*Anacharis Canadensis, gigantea:* giant water weed, water thyme, or ditch moss; rank grower but may be pulled out and used as a fertilizer if it crowds too much; useful also in aquariums.

2—*Cabomba viridifolia:* Washington grass; fan-shaped, glossy green leaves; plant by tying a clump together and weighting; this is not certainly hardy in the north, except in well protected ponds; it may be kept from season to season however by bringing a clump into the aquarium in autumn.

THE AVERAGE PLACE

The garden flowers and the shrubs which adapt themselves to all ordinary situations.

IN FULL SUN

1—*Dianthus barbatus:* sweet William; eighteen to twenty-four inches high; flower heads in mixed colors, from white to pink and deep red, or it may be had in pure colors; seeds or plants; use in masses; blossoms in May and June.

*2—*Iris Florentina:* "orris root" iris; two feet high; flowers white; large, fragrant and lasting; buy plants or clumps; use singly or in groups; blossoms in May and June.

*3—*Delphinium*, "gold medal hybrids"; hardy larkspur; four to seven or eight feet high; blue flowers in spikes sometimes two feet long; buy plants; group; set out in October or as

soon as warm enough in spring; stake when they reach a height of three feet; blossom in June, but, by cutting down after each crop has faded, they may be carried on through September.

4—*Hesperis matronalis, alba:* dame's rocket or damask violet; white; two feet to thirty inches high; white flowers, clustered in pyramidal spikes; very fragrant at night; plants or seeds; group; blossoms as early as June sometimes, and on into August.

*5—*Anemone Japonica*, "Queen Charlotte"; Japanese windflower; two to three feet high; flowers large and semidouble, silvery pink; buy plants; masses of from twenty up; blossoms early in August and on until frost.

6—*Chrysanthemum*—hardy pompon varieties; two to three feet high; flowers small, double, button-like, in white and all shades of yellow and red to bronze; plants about three feet in diameter; may be massed or planted singly; buy plants; blossoms early in August and on until after hard frost.

IN SHADE

1—*Actæa alba:* white baneberry; eighteen to twenty-four inches high; likes a rich soil; white flowers in clusters; buy plants; groups of six or more; blossoms as early as April sometimes.

*2—*Cornus Canadensis:* bunchberry; six to ten inches high; greenish-white flower followed by scarlet berries in a close bunch; buy plants; group in masses of twelve or more; blossoms in May.

*3—*Hemerocallis Thunbergii:* lemon day lily; twenty-four to thirty inches high; likes a moist soil but will do as well almost anywhere else; bears sun perfectly but may be more

Built literally upon a rock, this house is well united with the ground, and the general treatment of the site is interesting and unusual as well as practical and utilitarian

The abrupt transition from one level to another may be made the occasion for structural work that in itself adds much beauty

Elderberry growing wild; a choice and lovely shrub that responds delightedly to the attention which it merits

luxuriant in partial shade; bulbs or tubers; lemon-yellow flowers; blossoms in July and on.

*4—*Digitalis purpurea, gloxinæflora:* foxglove; four to six feet high; flowers in long, erect spires, white and shades of purple, rose and lilac; plants or seed; groups of six or more, or irregularly through a border; blossoms in late June and on.

5—*Cimicifuga racemosa:* bugbane; four to six feet high; white flowers in rigid, erect racemes, unpleasant smelling; buy plants; group; blossoms in July and August.

*6—*Heuchera sanguinea:* alum root or coral bells; twelve to eighteen inches high; ordinary soil, sun or shade; robust and bushy; bright red flowers in loose spikes; buy plants; plant in groups of four or more; blossoms in July and August.

SHRUBS; IN FULL SUN

1—*Forsythia suspensa, Fortunei:* golden bells; eight feet high, branches spreading, pendulous tips; flowers yellow and bell-like, the entire length of the branches, before the leaves; buy plants; blossoms in April or earlier.

*2—*Eleagnus longipes:* silver thorn; six feet high; yellowish-white, fragrant flowers, wreathed along the branches; fruits bright scarlet, olive-like, edible; buy plants; blossoms in May.

*3—*Rosa rugosa:* Japanese rose; six feet high; large pink single flowers; very showy red fruits; buy plants; blossoms in June and at intervals all summer.

4—*Buddleia variabilis, Veitchii:* Buddlea; eight feet high; reddish-violet flowers in long, upright, pyramidal clusters; foliage suffused with a rosy white, leaves long and slender; buy plants; blossoms in July.

*5—*Hibiscus Syriacus*, "Joan of Arc": rose of Sharon; twelve feet high; very double pure white flowers; buy plants; blossoms in July and on to September.

6—*Caryopteris mastacanthus:* blue spirea; five feet high; blue flowers in loose clusters, along the upright branches with the leaves; buy plants; needs some protection winters and may kill to the ground like a perennial, but new shoots will come up in time to blossom; blossoms in late August and on through November.

SHRUBS; IN SHADE

1—*Deutzia*, "Pride of Rochester": Deutzia; eight feet high; double white flowers tinged with pink, in loose clusters; buy plants; blossoms in May.

*2—*Diervilla*, "Eva Rathka" Weigela; six to eight feet high; spreading and arching branches; red flowers, abundant, the length of the branches; buy plants; blossoms in May and sometimes through the summer.

3—*Cornus stolonifera:* red osier dogwood; eight feet high; likes wet or damp places; small white flowers in dense cymes; branches blood-red and striking in winter; buy plants; blossoms in June.

4—*Ligustrum Ibota:* Japanese privet; ten feet high; spreading branches; small panicles of white flowers along the branches; buy plants; blossoms in June and July.

*5—*Symphoricarpos vulgaris:* Indian currant; six feet high; all kinds of soil; flowers inconspicuous, fruit dark red, the berries of irregular size; buy plants; blossoms in July.

*6—*Ceanothus Americanus:* New Jersey tea; three feet high; white flowers in a profusion of small upright panicles; buy plants; blossoms in July and sometimes on.

CHAPTER III

The Style of a Garden

ALL the lovely gardens of the world are ours to draw suggestions from. Let us do just that, and stop there, scorning ever to copy. When all is said and done, let us have, here in America, American gardens—not imitation Italian, or English, or Dutch gardens, or any other sort.

Italy, in the splendor of its gleaming, time-stained marbles and solemn cypress trees, is Italy adorned as its life, its climate, its social peculiarities and its evolution through twice a thousand years have adorned it. England, with her castles and ancient abbeys, and their moats and fish-ponds—relics of feudal days and cloistered monasteries—her clipped yews and velvet turf, is England after centuries of wars, of invasions, of murders and pilferings, and all the shifting conditions of life which these things bring. Is it not time we younger folks over here recognize this, and give up the ridiculous task of attempting to build Elizabethan and Italian gardens? Good taste and common sense would both seem to indicate that it is.

There are three factors which have directed the evolution of these old-world gardens quite as definitely as they have directed the evolution of the races which built them. And these three factors are at work here among us now and they will always be at work among men, and will always so direct. Climate is one,

though possibly the least important; the life of the people—their occupations, temperament, tastes and amusements—is another; their economic condition is the third.

Of these three the first is predetermined beyond man's interference; the second is variable; the third is practically fixed, as far as a home site is concerned. If an owner's position changes economically he moves into the place which that change fits him for, whether it is up or down in the scale; and the new tenant of the house he has left acquires it because his position, economically, approximates the original position of its former owner.

In other words, a place worth $10,000, costing $500 a year to maintain, will always be in the hands of owners of the same average income, though it may change hands frequently. Therefore we may say that its economic position is practically a fixed one.

Plainly then, whatever the amount to be invested in a garden may be, it is a matter for consideration most carefully under the second factor. This is the factor which stands for the changing, shifting, human equation; herein the degree of cultivation, the temperament and the taste of the builder will reveal themselves, in the production, through living mediums, of something that is good or bad, beautiful or ugly, truly artistic or falsely artificial.

The two great schools of landscape architecture are familiar enough; we have all shared, to a greater or less degree, in the bitter warfare that has raged between them since the long-ago days of Queen Anne—for it was in her reign that the reaction against "formalism," which grew into an hysterical obsession, first set in. It is doubtful if more belligerent partisans have ever represented opposing factions than those who have ranged themselves respectively on the side of "formal" and "informal"

A broad sweep of country and a rambling house demand a free treatment, yet even here the hedge-enclosed flower-garden is thoroughly appropriate

The restrictions of small city yards are charmingly compensated by turning them into such definitely designed gardens as this

There are places for some flower beds but not for such as these, and never, for any, in the midst of a lawn

Small wonder that these suggest the pastry cook; little tin cookie-cutters have just such whorls and flutings

—or natural—style in garden design. The contempt with which the latter have always regarded the former is only equaled by the disdain which the former have ever entertained for the latter.

But it looks very much as if the long controversy were drawing to a close. Not that it is fought out—oh, dear no!—but in spite of the resolute defense each faction has made of its chosen position, and the tenacity with which it has clung to it, force of circumstances is bringing them both on to a common ground—a middle ground that is neither strictly formal nor painstakingly and laboriously natural, but rather a happy compromise.

This is precisely as it should be. No amnesty, voluntarily but grudgingly declared, could be as binding as this which a constantly growing appreciation of the beautiful in art and Nature is forcing. And the equilibrium which is thus becoming established furnishes the most favorable condition for the development of a national taste and skill in gardening, which shall be indicative of and harmonious with national life and character.

The most ardent adherents of the landscape or natural school can hardly claim for it suitability to small areas, yet the small area is the typical American home site; while, on the other hand, the loyal advocates of that exquisite perfection of line and balanced detail which are the formal garden's structural necessity, must admit that these features demand an outlay in the building, and a skilled care in the maintenance, far beyond the capacity of anything less than a truly plethoric purse. But both sides must agree that all buildings, of whatsoever form they may be, are artificial—hence, following strictly the logic of the "natural" school, are abominations, out of harmony with Nature. What is to be done about this?

The apostle of Nature untamed and free, has tried to answer by planting out base lines of buildings and the angles of masonry

or wood, with vines and low shrubs—but discerning eyes see that something still is wrong, though their possessors may not know what. A house rising from an irregular planting of trees and shrubbery is far better, to be sure, than a house rising bare from the ground on which it stands—yet this is not enough.

There is but one reasonable and logical reconciliation between Nature and the artificial. They cannot be brought into harmonious relations except by carrying out architectural lines beyond the limits of stone or wood, in the more plastic materials which Nature supplies, direct out of the garden—namely the trees and shrubs. By this means, and this means only, there is the gradual transition from Nature wild to Nature tamed, and from Nature tamed and brought into a seemly order which approaches graciously yet unmistakably towards geometrical precision, to the actual and beautiful precision of the artificial structure man has contrived, by the aid of his compass and square.

And now it looks very much as if we had reached the position of formal *and* informal, instead of a choice between the two—which is exactly the answer to this troublesome question that a study of the wonderful old gardens yields. So it develops that we have just gone around in a circle and are no farther now than when we started!

Does it? No—for here is the pith of the argument; here is what I have been talking all this time to get ready to say. The formality of America is individual and *distinctly American*. It is not to be expressed in alien modes, whether of building, gardening, salutation, or what not. Upon occasion we are quite as punctilious as may be, but we are punctilious in our way, and not according to a foreign fashion.

Therefore we are bound to produce very different results,

even within the restrictions of conventional lines, from those accomplished by other races—if we go quietly along and permit ourselves to develop. Let us not refuse to be guided by the fundamental laws which govern proportion and design; but, within these laws, let us create something beautiful ourselves.

The first of these fundamental laws or principles assures us that a formal, architectural, or conventional garden must continue along one of the principal axes of the house. If it cannot do this no attempt should be made to have such a garden. And any formal design, of even the most limited extent, must be carried out on the axis of some feature of the house, such as an entrance, a porch, a large window, or some important detail.

This latter rule unerringly picks out the prominent architectural lines which may be carried on beyond the wood or stone of the building, although the building itself is absolutely irregular; and it supplies the necessary motif for planting even the tiniest dooryard—which, by the way, ought always to be planted upon such a motif.

The smaller the garden area the more strict should be the adherence to conventional lines, though they need not approach the limits of a 50 x 100 foot suburban plot, by any means. Rarely, indeed, does the average suburban house lend itself to any very extensive formal scheme, for it itself is seldom laid out upon the regular lines of more pretentious dwellings. Some detail must therefore be chosen to work from—and usually this will be the entrance, it being naturally the most prominent. With this well worked up and well blended into the general scheme, conventionality may stop right here, and broader lines may be followed in the rest of the work.

Planning, however, is not all that there is to a formal garden. The lines laid down must be carried out with material suited to

them, for unless this is done the whole will inevitably fail. Plants are as different in their manners as people, and quite as likely to look and seem queer, when put in the wrong places. Stiff and prim little trees and shrubs are to be had in plenty—but they must be of a shape conforming to the position which they are to occupy; and though a tangle of flowers may fill a given space in the formalest of gardens, the space itself must be set aside in a distinct and precise manner.

Evergreens furnish such a variety of shapes, from Gothic to globular, that they are naturally much used in architectural planting. Formal design becomes, therefore, especially desirable in places where winter effect is sought, as an aid to this effect as well as a means of transition from Nature to man. Let there be wildwood, and daisy-studded meadows, and grand old trees, and parklike sweeps of lawn by all means, wherever there is space. But do not outrage these by setting in their midst an artificial excrescence in which to dwell, without softening the affront as much as lies within your power, by all the means at your command.

Even if there were no beauty in formality this need for it would be argument enough in its favor. But it is beautiful; in and by itself, it possesses a serene and stately beauty absolutely unrivaled. It is only the extravagant abuse of it that is undesirable—but is extravagance ever anything else, whatever form it takes? And is intemperance ever anything but vulgar?

LISTS OF PLANTS

Plants for formal gardening are divided into two classes: the untrimmed and untrained natural forms, and the trimmed and trained artificial forms. In the first class there are columns,

pyramids, globes and standards; and therefore this class contains, as a matter of fact, all the material required in formal planting. These possess great advantages over the plants of the second class, inasmuch as their care is practically nothing at all. Clipped forms must be constantly watched and kept in shape by ever repeated shearings, at the proper season—and it requires no mean sculptural skill to maintain them in perfect symmetry.

Evergreens furnish a large proportion of the material for formal gardening, though deciduous specimens are by no means lacking. Formal hedges must of course be sheared, whichever may be used, for nothing but shearing will develop the density of the growth, or keep it perfectly equal and true to the trim lines laid down.

Evergreens should be sheared just before the season's growth starts—in March or April—while they are being developed; that is, while they are being allowed to grow. After they have attained the desired size, they should be sheared annually, in June. Deciduous plants may be sheared in spring, just after the growth starts, and twice during the summer, as may be necessary to keep them in shape. Winter clipping induces strong growth of shoots usually and where this strong rank growth is desirable, winter pruning may be done. It will encourage density of growth also and is useful therefore when the plants are not as large as desired, or as bushy.

HEDGE PLANTS

EVERGREEN

1—*Tsuga Canadensis:* common hemlock; makes an impenetrable, dense green wall of any desired height up to fifteen feet; prefers a rather moist soil, well drained; the most beautiful of all evergreens for a hedge; stands pruning

perfectly; plant two to three-foot plants eighteen inches apart; take off the tips of the leaders and of all branches in March or April, until large enough to shear; when this size is reached, trim as directed, in late May or June.

2--*Thuya occidentalis:* American arborvitae; grows naturally in moist places but does well when planted in any ordinary soil; plant and trim the same as hemlock; will require very little clipping on the sides at first, as the width is not great for the height.

DECIDUOUS

1—*Ligustrum Amurense:* Amoor privet; grows to fifteen feet high; any soil and will not mind shade; set three-foot plants nine inches apart, in a trench twenty-four inches deep; this plants them six inches deeper in the ground than they were; trim the tops evenly at a height of twelve inches after the hedge is planted, and trim away the tips of all side shoots; keep low until a dense base growth is well established.

2—*Fagus sylvatica:* European beech; to any desired height; loamy soil; the bronze-gold leaves persist all winter; they are large and the character of the hedge is less solid in appearance than privet, though it makes an impenetrable screen, winter and summer; set two or three-foot plants twenty-four inches apart; prune before growth starts each spring and trim off straggling shoots at any time afterwards; especially desirable for high and large hedges.

(All hedges, whether evergreen or deciduous, should be trimmed narrower at the top than at the base. The ideal form is a straight-sided or a slightly convex-sided wedge· in the

former the top is flattened to a width equal to half the base, in the latter it is not flattened at all but is an actual wedge form.)

EDGING FOR BEDS AND WALKS

1—*Buxus sempervirens, suffruticosa:* dwarf boxwood; four to six inches high; set four-inch plants four inches apart; protect lightly with litter from hot sun during the first two or three winters after planting.

2—*Ligustrum ovalifolium:* California privet; any soil and will do perfectly well in shade; may be kept trimmed to four inches in height—when this is done the leaves become small and the general appearance very like boxwood; Amoor privet may be treated in the same way.

COLUMNAR—NATURAL FORMS

EVERGREEN

1—*Juniperus Virginiana:* red cedar; may attain forty or fifty feet in time; any soil—poor and stony, or low and damp ground, or even immediately on the seashore; nearest approach to the classical cypress form, but may not retain this in extreme old age, as it has a tendency to lose its lower branches and spread into picturesque irregularity at the top.

2—*Thuya occidentalis, pyramidalis:* pyramidal arborvitæ; finally reaches thirty feet in height; prefers a moist, loamy soil; very slender and spire like.

3—*Juniperus communis, Suecica:* Swedish juniper; attains to forty feet in height; any soil; narrow and slender; light bluish-green in color.

DECIDUOUS

1—*Populus nigra, Italica* (*P. nigra, fastigiata*): Lombardy

poplar; sixty feet high; any soil; rapid growing; effective when used after the manner of the old world cypress.

COLUMNAR—TRAINED ARTIFICIAL FORMS

EVERGREEN

1—*Buxus sempervirens:* boxwood; three to five feet high; grows slowly and therefore does not require much shearing.

2—*Tsuga Canadensis:* hemlock; may be kept at any height; shear in the same manner as when used for a hedge.

DECIDUOUS

1—*Ligustrum:* privet; from three to seven feet high; retains its leaves during winter, so is actually half evergreen; shear the same as when used for a hedge.

PYRAMIDAL—NATURAL FORMS

EVERGREEN

1—*Thuya occidentalis, Sibirica:* Siberian arborvitæ; to thirty feet high, of slow growth; loamy soil; broad at base and tapering; dense; brighter green than other arborvitæs.

2—*Retinospora pisifera, plumosa* (*Chamæcyparis pisifera, plumosa*): Japanese or Sawara cypress; three to eight feet high and same width at base; moist but well drained sandy loam, partly shaded, and sheltered from drying winds.

3—*Retinospora pisifera, squarrosa* (*C. pisifera, squarrosa*): blue Japanese cypress; same as above; foliage silvery-blue, dense, feathery.

There are no deciduous natural pyramidal forms. Pyramidal trained artificial forms, both evergreen and deciduous, may be had in the same varieties as the Columnar forms.

A house in the wildwood nestling among trees is one of the few dwellings whose approach does not require at least a modicum of formality

Another exception to the demand for formal treatment is the house which rises from rock formation; the third is the bungalow crouched upon sand dunes

A bit from the Villa Lante; structural work of this sort should never be undertaken unless the dwelling harmonizes perfectly

The mellow, time-worn gardens of Italy and the Old World generally, may be rich in suggestion but ought never to be slavishly imitated

GLOBULAR—NATURAL FORMS

EVERGREEN

1—*Thuya occidentalis, globosa:* button-shaped arborvitæ; two feet high and the same in diameter; bright green foliage.

2—*Thuya occidentalis*, "Little Gem": dwarf arborvitæ; two feet high, broader than high; moist, loamy soil; dark green foliage.

DECIDUOUS

1—*Viburnum opulus, nanum:* dwarf viburnum; two feet high, broader than high; common soil; compact and well formed and holds its shape.

2—*Catalpa bignonioides, nana* (*C. Bungei*): dwarf catalpa; three to eight feet high, eight to ten feet in diameter; any somewhat moist soil; will do well at the seashore; large leaves and luxuriant growth.

GLOBULAR—TRAINED ARTIFICIAL FORMS

EVERGREEN

1—*Thuya occidentalis:* American arborvitæ; shear as directed for evergreen hedges.

DECIDUOUS

1—*Ligustrum:* privet; shear as directed for hedge.

STANDARD OR BAY TREE FORMS

(These are always artificially produced.)

EVERGREEN

1—*Buxus sempervirens:* boxwood; stems up to eighteen inches high; heads to two feet in diameter; should be shaded from the midday sun of winter; give light winter protection for two years after planting.

DECIDUOUS

1—*Ligustrum:* privet; stems from two to six feet high, as desired; heads three to four feet in diameter; half evergreen, retaining its leaves all winter; must be sheared to maintain its form; small leaves and dense, compact growth; shear as directed for hedges.

2—*Catalpa Bungei* (*C. bignonioides, nana*—grafted high): bay tree form of catalpa; stems six to eight feet high; heads eight to ten feet in diameter; this retains its form naturally and does not require shearing at any time; large leaves and heavy foliage, making dense heads.

ARCHES AND NICHES

EVERGREEN

1—*Tsuga Canadensis:* hemlock; may be bent and trimmed in any desired form; shear same as directed for hedges.

2—*Thuya occidentalis:* American arborvitæ; shear same as directed for hedges.

DECIDUOUS

1—*Ligustrum:* privet; may be pleached—woven together—and trimmed as desired; shear same as directed for hedge.

CHAPTER IV

Getting into a Place

IT is the fashion of some landscape architects to consider all roads or walks as simply necessary evils, to be slid over and made as inconspicuous as possible—and then forgotten. This has always seemed to me, however, a rather extreme view to take of a thing so essential as our exits and our entrances—a view that is likely to lead to over-elaborate efforts at concealment of them. This in turn leads to freakish results—or is liable to.

Entrances we must have, therefore let us first of all be frank with them. And then let us spare no pains to have them beautiful; for the entrance gives to the whole place its characteristic first impression. But to make them beautiful we must find out very carefully, at the outset, what constitutes a beautiful entrance.

The beauty in a gateway itself—the entrance in a narrow sense—is secured, I should say, first of all by suitability. But gateways we will leave to a chapter by themselves, and deal here with the plan, on the ground, of the approaches from the highway. These constitute the entrances in a broader sense, being the way in; and their arrangement is the first thing to be considered and decided upon when developing the layout of a place. They are one of the absolutely vital features. Indeed

it is not too much to say that more places are ruined by badly located driveways and walks than by any other one thing.

No absolute rule can be formulated for laying out a walk or a drive. Generalities for certain circumstances may be developed, but no certainties for general application reward even the most earnest study—excepting this: Walks and driveways should always be direct—as direct as the line that a tired man or a lazy man or a hurried man, coming into the house or driving to the stable, would naturally follow.

I am perfectly sure that no one can go wrong in placing a gateway, or mapping a walk or drive, who understands this one truth, and acts upon it intelligently.

Let us take a glance into the realm of psychology for a moment —after premising that the location of the house and all other buildings, being governed by the formation of the land and other local conditions, has been decided upon before the question of entrances comes up at all. It should be; the very choicest site which the land affords should be selected, regardless of how the drive or walk is to reach it, or where the gate is to be. There is never any kind of path, anywhere in the world, that does not lead to something that was there before it.

Given, then, a house situated where you want it on the land; fronting in whichever direction is to the greatest advantage, according to the arrangement of its rooms; with its doors and windows placed where they are under the twin considerations of convenience and beauty; locating the gateway and mapping the walks and drives become problems of psychology, pure and simple.

Lives there a man who does not want to cut across the lawn? Even though it may save him less than half a dozen steps to do so, the impulse is nearly always there. Why is it? Why does

this tantalize him and keep him ever on his guard against yielding to it? Why this wellnigh irresistible desire to go some other way than along the walk laid out? Is it just human nature—or is there a reason for it?

Undoubtedly it is, just human nature; but there is a reason for it, even so. And there is a way of getting at the reason—which brings us to psychology, does it not? For this great science of the mind is surely, after all, first the science of human nature—the science of analyzing and classifying those curious twists which individualize us.

In this matter of walks it resolves again into the line of least resistance. Indeed this is continually revealing itself as the most compelling influence. Therefore the highest degree of success attainable in mapping a walk lies in working with it—in humoring whimsical human nature, which after all is not altogether as unreasonable as it sometimes seems. In other words, it lies in placing a gate at the psychological point and a walk along the psychological line. The walk or drive—I must be understood as referring to both in all generalizations—that carries a capricious human creature to a given point, without its having occurred to him that a difference in direction here or there would get him there with completer satisfaction to his soul, is a success. That is unquestionably the supreme test.

But how are we to determine this line? And will it not interfere sometimes with a great many important things, if literally followed?

To the latter, yes it will—sometimes—if *literally* followed; to the former, we are going to determine it by predetermining just where it shall fall. That is, we are going to create the conditions which will establish the direction we wish it to take, instead of accepting the direction established by conditions as

we find them—providing of course that conditions as we find them do not already direct it along the easiest, best and most generally beautiful course.

On a large place this is as likely to be the case as not, if the ground is rolling. Long, sweeping curves will come naturally from following the easiest grade and avoiding mounds and hummocks. But with less land, natural contours are less varied; and something must be done to supply the lack of them. What shall it be?

Decide, in the first place, at what point of the grounds travel towards the house naturally focuses. If you will notice where your own steps tend to leave the sidewalk and stray truantly across the lawn, or the place where the lawn is going to be, you will easily fix this point. Then, starting from it, determine the course that is ideal for the walk to follow—the course which will suit you perfectly as you walk over it, and that will look best from house, grounds and street. *This will almost never be a straight line.*

When it is found, if no excuses exist for its deviation from a straight line, provide them. Plant a tree squarely in the way, with another near enough to give both the appearance of happening to be there. Reinforce these with groups of shrubs if necessary, which the walk will have to avoid. Lead and coax it along in this way until, adjusting itself to the obstructions you have furnished, it follows *your* own sweet will, with nothing to hint that it could have taken any other course.

In view of the fact that the "direct" line is usually interpreted to mean a *straight* line, this will of course seem to be an absolute contradiction of the one general rule with which we started. But the direct line, as a matter of fact, is almost never a straight line, running at a right angle from the street. It is instead a *direction*

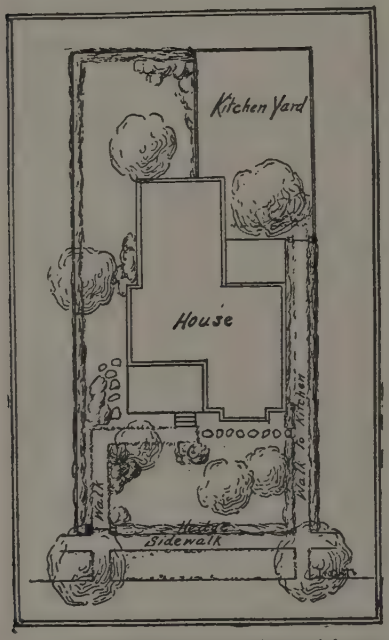
line, which bears off from the street at the point where the mind and the feet naturally turn towards the house entrance, leading to that entrance irresistibly yet not violently.

The tired individual, sauntering homeward, will very rarely—indeed I doubt if he will ever—find it the natural thing to walk to a point directly opposite the house door, turn a right-about-face, and walk in, in a beeline, and up his front steps. And it is not fatigue, as a matter of fact, that makes the idea of doing this irritating. It is the lack of actual directness, and the violent interruption in the force which is impelling him forward, which his feet and his subconscious mind are aware of, even though his active consciousness may not be.

The small suburban place, with its restricted area, offers possibly the most difficult problem of all, in this as in other respects. Its limitations are decided, and conventional ugliness has long been accepted as the proper thing—indeed, the only thing. In fact the small suburban place, commoner than any other kind of place in the land, is the one thing which we go on uglifying year in and year out, in Simian imitation each of the other. There is almost never an attempt to break away from the commonplace treatment that makes all such places ordinary and uninteresting.

Once in awhile, however, something is done which gives a hint of the possibilities of even such places as these. And on the next page is a little diagram showing a departure from the tiresome old ways, which illustrates some of the things I have been saying. The arrangement of the entrances is of course the feature which makes this place so different from all others. But it is worth while to note that, by planning these as they are, the whole place is vastly improved and much space saved. It is therefore an excellent example of good landscape gardening.

Originally there was the usual walk, leading straight from the sidewalk to the front steps of the dwelling. This of course cut the already small lawn into two parts, the two patches being each about eighteen by twenty-five feet. The lot is fifty by one hundred. The walk to the kitchen was where it is now, and had to stay there because of the general plan of the house. Only two courses therefore were open as a means of improvement.



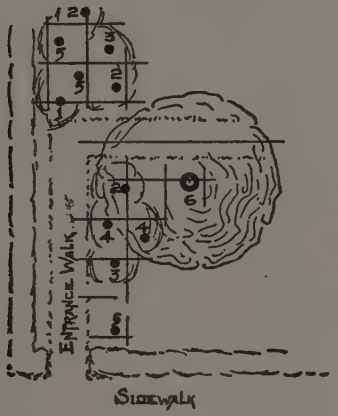
A typical suburban lot redeemed by an unusual arrangement of walks

One was to move the point of departure of the kitchen walk from the sidewalk, along six feet to the left; to broaden this walk to four feet, and branch it into a Y when within six feet of the house. The right arm would then disappear, as kitchen walk, around the corner of the building, while the left would terminate at the foot of the steps.

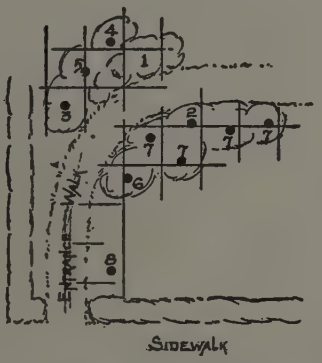
This would of course have made one gateway and one walk, for a certain space, serve two entrances. And the disadvantages of having a service entrance and a main entrance the same, even on a very small place, are obvious. But this was not the only thing which decided against such an arrangement as that just outlined, and in favor of the scheme as it is here shown. The unalterable way in and out to this place is at the left hand corner. That psychological influence which is forever at work in this

matter, so decreed. Its decree was accepted and wisely followed—and the result is an absolute verification of the principle.

There was no hedge and almost no planting of any kind when the tests were made to determine the location of this important point. It was therefore an exceptional opportunity to observe the impulse, not only of those living in the house, regarding it,



Plan A—Planting detail of entrance walk as shown



Plan B—Planting detail of a slightly different arrangement

but of casual visitors as well. And all kinds of subterfuge were resorted to, to trick the unwary and lure them into wandering in, across the little squares of green that lay on either side of the prim granolithic walk.

Nine out of every ten left the sidewalk just where the gate is now—and the tenth looked longingly at that point, though he kept dutifully to the walk. None made the exact right-angle turn at the porch which the walk shows; but a group of shrubs close to the walk, in this angle, backed up by a tree which shades the porch, deludes one into going that way now, willingly and contentedly, because it is plainly the most direct—or seems to

be. The sharp turn was used because the small amount of space made it important to conserve every foot of lawn surface. A curve would have sacrificed a little; and though it would have been better, strictly speaking, it would not have been enough better in so small an area to make up for the loss.

The house was a rambling affair, irregular enough and informal enough to have almost any kind of a garden, except a formal one. So the hedge-enclosed front lawn was planted with a border of old-fashioned flowers on two sides, with more against the house for good measure. To provide a way out to the kitchen entrance, as well as a private way in from that side if one happens to need it, a line of stepping stones was carried across the front, past the bay window, to a wicket in the half hidden hedge.

Similar stones at the end of the porch prevent the tramping down of the grass which is sure to result from much running across in such a situation. Always remember, by the way, to put two stones at the end of such a line. These divert footsteps, now this way, now that, so that the grass will be worn evenly instead of just in one place following the last stone.

By shifting the front walk on this place the dimensions of the lawn became 42 x 25 feet, the former being the distance across the front from the inner side of the hedge which excludes the kitchen walk, to the inner side of the boundary hedge opposite. This increased area is all in one undivided stretch of greensward, which makes it appear even more of an increase than it actually is.

The kitchen walk is utilitarian, pure and simple, yet passing between the two rows of hedge as far as the corner of the house and between vine-covered house and hedge from there on, it is by no means unattractive. A stout gate admits it to the kitchen yard, which is completely latticed.

The sidewalk remains of cement, but once inside the front gate—painted white, this is hung between white posts, above which the privet of the hedge is trained to form an arch—there is no longer a sign of such massive material. The house walks are both appropriately graveled as becomes a simple cottage scheme. The hedge is trimmed at shoulder height, rising higher, as already mentioned, at the gate. The seclusion of the place is delightful, yet it is not at all shut in.

There is much about this little place that is generally suggestive and helpful. Walks and drives are simply longer or shorter according to the distance they must cover; they are never very different one time from another, excepting on uneven ground. And even here there is no method of laying them out better than the one described—of this I am long since convinced—unless the circumstances are very exceptional.

PLANTS USED

PLAN A—PARTIAL SHADE

1—*Daphne Mezereum:* Mezereon pink; three to four feet high; any soil, said to prefer a light rich one and part shade—will do well in sun however, and even in dry soil; flowers deep red-purple, very fragrant, close along the stems in twos and threes; blossoms in March, sometimes in February, long before the leaves appear.

2—*Berberis Thunbergii:* Japanese barberry; four feet high; any soil; low and dense, horizontal-branching shrub; flowers pale yellow, small, strung along the branches like little inverted cups; blossoms in April and May; scarlet berries follow which remain all winter.

3—*Deutzia corymbiflora:* Deutzia; four feet high; any soil; the branches are long and slender and spreading; white flowers

in large clusters at the ends of branches and twigs, covering the bush; blossoms in June.

4—*Cornus sanguinea:* variety of cornel; twelve feet high; any soil, sun or shade; greenish-white flowers in dense, round, flat clusters; blossoms in May and June; black fruits follow; the branches of this shrub are a deep blood-red in winter and very decorative.

5—*Syringa vulgaris:* common lilac; twelve to twenty feet high; any soil will do but a moderately moist one is preferred; familiar lilac-colored flowers; blossoms in May and June.

6—*Acer rubrum:* red maple tree; reaches one hundred and twenty feet high in time; any soil; the earliest of the trees to flower, its scarlet blossoms appearing in March or April; very gorgeous in autumn color.

PLAN B—FULL SUN

1—*Chrysanthemum*—hardy pompon type; two to three feet high; any soil; flowers in greatest abundance, small and button-like, in white, all shades of yellow to deep coppery-bronze and all shades of mauve-pink to deep maroon; keep to one or the other of the two latter color divisions in selecting, and do not attempt to use both; blossoms in September and on until frost cuts the plants down.

2—*Deutzia corymbiflora:* as described in the list for Plan A.

3—*Lonicera Morrowi:* Japanese bush honeysuckle; six feet high; any garden soil; flowers white, turning to yellowish; blossoms in May; covered with ruby berries from late in July on through the summer and until hard frost.

4—*Diervilla hybrid, Pascal:* hybrid Weigela; six to eight feet high; branches erect, arching and spreading; deep red flowers in great abundance covering the bush down to the

The perfectly balanced house may be approached by a direct entrance but the effect of such an approach is not always gracious

Suggestive and inviting glimpses lend charm, as does nothing else, to an entrance

Even a very small lawn area acquires spaciousness and dignity if its mass is unbroken by the entrance walk

Perfect symmetry again and trim perfection, but warmth and welcome are lacking and there is a suggestion of artificiality

ground; blossoms in June and sometimes again later in the summer.

5—*Forsythia suspensa, Fortunei:* weeping Forsythia or golden bells; eight feet high; branches arching and tips touching the ground; yellow bell-like flowers along every branch and twig; blossoms before the leaves unfold in early spring; attractive in foliage.

6—*Spiræa VanHouttei:* VanHoutte's spirea; six to eight feet high; any soil; slender arching branches; dense round clusters of tiny white flowers, burying the bush; blossoms in May and June.

7—*Rosa rugosa:* Japanese rose; six feet high; any soil, in sun; large single flowers, white (*alba*) or rose-colored (*rosea*); blossoms abundantly, in June and on throughout the summer until late in the autumn; flowers followed by very ornamental red hips or berries that persist all winter.

8—*Hydrangea paniculata, grandiflora:* great-panicled hydrangea; might reach twenty feet in height but is usually kept back by pruning, which helps to produce finer bloom; any well drained soil, with plenty of moisture; enormous panicles of white flowers; blossoms in August and holds the clusters until late autumn; color changes from white to pinkish lilac.

CHAPTER V

Vines as Harmonizers

IT would scarcely appear at first glance that vines need occupy the attention of the landscape gardener for very long, or that they hold a place very peculiarly their own in landscape work. Yet they are possibly the one class of plants upon which we are dependent more than any other, in every circumstance, and whether the work to be done is very great and pretentious or very humble and modest. For vines—or to speak more accurately, climbers—are a paramount necessity at the very beginning.

Nature, sober, staid and dignified, objects, I take it, to being surprised. Witness how aloof she holds herself from any newly finished work of man, until even the most unimaginative feel her absence and are chilled. And of course the work of man is a surprise! Possibly it is a presumption—certainly it is artificial and unnatural—and possibly her averted face is no more, indeed, than a very justly deserved rebuke.

But, however that may be, if man, with understanding of Nature's peculiarities and acknowledgment of his own crudeness, will offer her the apology which is implied in an appeal to her for aid, she is graciousness itself. All her resources are immediately at his disposal, and the exquisite fabrics of her looms are flung with careless grace here, or hung with rich splendor

Vines alone have accomplished the union of this house with its site, and though as a composition it is not complete until shrubs and trees are added, the transition from natural to artificial is excellent

For draping columns, vines of the light and graceful sort that will show in delicate tracery against them should be chosen

The entire wall of this old house is covered with trellis work, itself most ornamental, which supports many climbers without their being tied

there, according to the need. Airy draperies and heavy there are—enough kinds to suit the demands of every place and occasion. Encourage her to spread them—that is all she needs.

In common parlance, plant vines—that is appealing to her, directly and frankly for aid. Plant them first of all, and plant them plentifully around new buildings. And plant them as soon as the builders have gone, quite independent of whatever other work may be intended and quite independent of the garden design.

Whether a place is large or small, formal or informal, matters not at all so far as this detail is concerned. The vital thing is that every building must have vines upon it to impart that sense of oneness with the earth which is the first essential. Until this is acquired the eye will not rest upon it with any sense of real satisfaction.

But vines themselves are formal and informal in their habits, quite the same as other plants; and they must therefore be chosen to suit the place which they are to occupy and the material which is to be their support. Then, too, they are quite different one from another, in other ways; and the qualities which distinguish them in these other ways must guide very considerably in their planting.

In the first place, though we speak generally of "vines" and though all vines are climbing plants, all climbing plants are not by any means vines; and in the second place, all do not "climb" unassisted. Climbers are defined as weak-stemmed, tall-growing plants which are incapable of rising from the earth without support. Of this very general class the true vines lift themselves; the others are simply prostrate unless lifted.

The means by which vines lift themselves are the determining factor as to their use, and these means are three in number.

Some twine bodily around their support, some catch it with tendrils or twining leaf stalks, and some cling to it with aerial rootlets, or with numerous tiny sucker-like disks provided for the purpose.

The latter of course are the vines which furnish the dense, compact and beautiful wall coverings—the most formal growth that there is. The ivies ascend in this way, also the "clarion-flowered" trumpet creeper. Morning-glories and Wistaria are twiners—note that they are more airy and careless in their growth—while the grape, in both its ornamental and its purely utilitarian forms, is an example of those still more careless growers which draw themselves to their support with coiling tendrils.

The so-called climbing roses do not climb at all, but must be helped up and tied to their support; the matrimony vine, so often found in old gardens, is at a similar disadvantage, but this is usually planted where it may fall over a wall and in such a position needs only to be let alone. A variety of the familiar Forsythia, which has slender, pendulous branches, is practically as much of a climber as either of these, though it is all too seldom used as such. This is suited to a similar location against or above a wall. And there are numerous hardy plants listed as prostrate shrubs which send out long runners quite the equal of many reputed climbers.

Of course only the climbers that belong to that class which actually holds fast to a surface by disks or rootlets, are entirely independent of a trellis or support of some sort; but this very quality of close surface clinging, on the other hand, makes its possessors unsuitable for use in many places. The grip of the tiny disks or rootlets carries the plant over and around an object until it is practically lost to view—and that is going a little too

far. A shapely white column, for instance, is lovely when ornamented by a green tracery that shows against it — but clumsy when obscured by a thick, verdant blanket that destroys its outline. For, after all, though Nature is to be placated as far as possible, we cannot allow her to obliterate our abodes.

Generally speaking, all porch vines should be provided with a trellis to climb on—and right here let me say that the ornamental possibilities of various forms of trellis are rarely taken advantage of as I should like to see them, and as they very easily might be. There is permanent beauty in a well designed and well constructed permanent support, that frankly takes its place and makes no attempt to hide when the plant which it supports does not conceal it. It is a feature that deserves more consideration than it usually receives.

Strings and chicken wire are not to be despised in their place, but the dignity of heavy-growing and profuse-blooming hardy climbers requires something worthier than these to support it—and this something should always be built. The architecture of a building will usually suggest the form and the design to be adopted, and some architects, indeed, include such suggestions in their elevation drawings for a house.

Vines over a porch, however, whether supported on a trellis or climbing directly on the uprights which sustain the roof, should always follow the lines of construction and should never cross the open spaces between columns or uprights; nor should they be allowed to fill these by hanging over them from above.

Primarily a vine is a drapery and should be treated as such. Where it is wanted for shade it should be trained out over a horizontal, awning-like framework or extension to a porch roof, rather than in a dense, vertical wall that closes the porch in from

light and air and view. Vines clothing walls should likewise be trimmed sharply away around casements and other openings. Indeed the effect is better if they are not allowed to cover an entire wall surface but are restrained at suitable points, so that the wall itself is visible for perhaps a third of its area. The contrast between wall and foliage is usually more pleasing than the unbroken expanse of green—and cornice lines, corners, and angles here and there should always be left uncovered, to reveal unmistakably the definite form and strong sharp outline of the building.

The use of flowering climbers against a house is never a source of any particular pleasure to the dwellers therein, for the blossoms are borne where they cannot be seen excepting from without. It is well to bear this in mind in selecting and planting; not that it is a reason for not planting flowering climbers, but rather that it is a reason for planting two of them—one against the house, if you will, and one against a trellis or an arbor or outbuilding, where it can be seen from the house.

It is a good rule to keep to the green and leafy vines for the dwelling, however, because of their freedom from insects and the absence of litter in the shape of falling petals and flowers. Roses require spraying invariably, and other flower-bearing climbers are likely to. It is a very great nuisance to accomplish this where they are trained against a surface which may be stained by the spray.

Climbers are the one means whereby Nature's green may creep up and cover foundation walls where they rise from the ground—and that is the particular place where they need covering. The work of garden construction on any place is well begun when plants to furnish this cover are once established. The planting of shrubs later, at points along a foundation, is a matter to be

decided by the plan of the place as a whole—and must wait for such plan to be matured. But vines—again let me urge it—need wait for nothing. They may be planted at any time, as soon as the outside of a building is done.

As a very first step, then, it is safe to say that Boston ivy or one of its varieties, may always take its place on a building's sunny side, while English ivy may be used where no sun will reach, if one wishes. The English ivy is more formal in growth of the two and is therefore especially suited to buildings of a very formal nature or style. Its hardiness in this climate, however, depends on its being protected from the warmth of the sun during cold weather—the sun kills it, not the cold—and this of course renders its general use on all sides of a structure out of the question.

On buildings other than dwellings several vines may sometimes be mingled with good effect, if the right kinds are chosen. With those which, like the honeysuckle, are inclined to be bare of foliage near the ground this combination planting is indeed quite essential to a pleasing result. Clematis also needs the leafiness of some companion to make up for its own lack of foliage, especially low on the stems.

Combinations to insure all-summer bloom are easily worked out. Lovely and striking hedges may be made up of a tangle of two or three climbers like honeysuckle and Wistaria, supported by and mingling with the common wild rose of the fields and roadside (*Rosa lucida*), or the even lovelier Michigan rose (*Rosa setigera*). These form a practically impenetrable barrier, and will grow almost for the planting. They require more ground, to be sure, than an ordinary fence, but they are a garden in themselves, and the only care they need is the cutting away of enough of all three annually to prevent them from

choking each other. The honeysuckle will require the severest pruning usually, being a rampant grower.

Finally, it is worthy of note that, while vines are indispensable to the great place, regardless of how much other planting it may boast, they are also the one thing which the tiniest scrap of land will support. They are the material *par excellence* which will furnish the greatest possible results in the least possible space. Roothold is practically all the ground that they require, consequently the most restricted area may accommodate one or two. No wall or fence, even in the heart of the largest city, need ever be bare of some sort of restful green. They are the one thing adapted to every place, with positively no restrictions.

LISTS OF PLANTS

VINES FOR USE ON BUILDINGS

SURFACE CLINGING

1—*Ampelopsis tricuspidata* (or *A. Veitchii*): Boston ivy; any soil; climbs to any height; will grow practically anywhere, though it likes some sun.

2—*Euonymous radicans:* Japanese evergreen creeping euonymous; slow-growing; fine leaf, glossy and strong; very beautiful for masonry.

3—*Hedera Helix:* English ivy; high-climbing; any soil, though it prefers a rich and moist one, always in shade; the north side of a building usually suits this best; evergreen, with thickened leathery leaves.

TWINING

1—*Wistaria Chinensis:* Chinese Wistaria; climbs to any height; prefers a deep rich soil but will make the best of that that

Fresh green Boston ivy, fragrant Hall's honeysuckle, large-flowered clematis and the exquisitely lovely Wistaria are perhaps the four best house vines

Beautifully united with the ground in its lines as well as in the planting, this is a striking example of the desired end accomplished by simple means that are in perfect accordance with the character of the site

is dry and sandy; flowers light violet-blue, in long, loose clusters; blossoms in May and again, less freely, in September; stem twines and grows woody with age; clings by twining tendrils also; always buy pot-grown plants as others do not transplant readily.

2—*Clematis paniculata:* Japanese virgin's bower; climbing to twenty or thirty feet; rich, light loam—add lime to the soil every other year; sheets of fragrant white starlike flowers; blossoms in August and September; seeds are also very ornamental; climbs by twining leaf stalks.

3—*Akebia quinata:* Japanese Akebi; tall-climbing; well drained soil, in full sun; clusters of bluish-brown flowers, spicily fragrant; blossoms from early spring on through May; the fruit, a long purple berry, is eaten in Japan, but it is rarely produced in this country; plant with the clematis—Number 2—to clothe the latter's bare lower branches.

VINES FOR COLUMNS

All vines must be trained and held around columns; heavy wire supports are usually best, being least conspicuous; a wood support may carry them up a short distance from the ground and they may then be carried over and around the column and secured in place.

1—*Vitis vulpina:* riverbank or frost grape; tall-climbing; any soil; flowers very fragrant—with the garden grape; fruits small, black-purple, sour and not pleasant to eat; lifting by tendrils, this must have something for the tendrils to grasp, provided for it.

2—*Vitis Labrusca:* fox grape; strong, tall-climbing; any soil; leaves furred densely underneath with reddish wool, making them particularly rich in color under sunlight;

fruits large and very like the common grape in looks but falling when ripe; musky and sweet; this lifts by tendrils and must be provided with tendril supports.

3—*Clematis lanuginosa, Henryi:* large-flowering clematis; climbing to fifteen feet; deep loamy soil in full sun; cream white flowers, four inches across; blossoms in August and September; lifts by coiling leaf stalks; give strong and rigid support from the ground some distance up, so that the plants will not whip in the wind; an iron rod or a light wood trellis is the best thing.

4—*Tecoma radicans* (or *Bignonia r.*): trumpet creeper; strong high climber; any soil; scarlet trumpet-shaped flowers; blossoms in July and through August; lifts by aerial rootlets which clings to surfaces as persistently as the disks of disk-climbers.

5—*Ampelopsis quinquefolia, Engelmanni:* variety of Virginia creeper; high-climbing; any soil; colors brilliantly in autumn; varies in habit so that it may require tying up or it may lift by disks.

6—*Lonicera Periclymenum, Belgica:* Dutch honeysuckle; climbing to twelve or fifteen feet; any soil; flowers red outside; blossoms all summer; climbs by twining.

LOW SHRUBS SUITABLE FOR BASE OF BUILDINGS

1—*Berberis Thunbergii:* Japanese barberry; two to four feet high; any soil and in sun or shade; small pendant yellow flowers in April or May; bright scarlet berries persisting all winter; fine foliage, very brilliant in autumn color.

2—*Forsythia suspensa, Fortunei:* pendulous golden bells; eight feet high; any soil; yellow flowers like bells the length of the branches before the leaves appear in spring; the branches

arch and tips fall to the ground so that the bush is seldom actually as tall as its height in feet would indicate.

3—*Symphoricarpos racemosus:* snowberry; three to six feet high; any soil, sun or shade; flowers small, red; blossoms in July; quantities of fat white berries, crowded and irregular in size, follow, persisting until winter storms destroy them.

4—*Pieris Mariana* (or *Andromeda Mariana*): lily-of-the-valley shrub, or stagger bush; four feet high; moist well drained soil, free from lime, part shade; pinkish-white flowers in wands three inches long and over, fragrant; blossoms in April to June.

CHAPTER VI

Vistas Good and Bad

A BARRIER of living verdure makes an unpleasant prospect practically non-existent, whether space be measured in acres or in feet. Therefore it does not seem an exaggeration to say that the possibilities which lie between what are termed "planting out" and "planting in" are the greatest boon of the garden builder, wherever he may be working. Nothing need be endured, for even the tiniest of snug little places has room for a screen of one sort or another. And the tinier the place the greater is the likelihood of its needing a screen somewhere.

Distance is the primary consideration in planning a screen—not the distance away of the object to be screened, however, but the distance between it and the screen. What this distance shall be is determined by the relative size of the object and the place from which it is desired to hide it. Therefore, this demands attention first.

Let us suppose that the small building at the right in the diagram is to be cut off from the window of the house only. Then, in order to be made up of the least number of shrubs possible, the screening group must be placed close up to the window. But if the same building is to be "planted out" from the entire porch it will be necessary to set the shrubs of

The transition from the formality of the garden to the salt meadow beyond is beautifully accomplished by means of reedy grasses, all lines, even the screen at the right, being horizontal, low and spreading

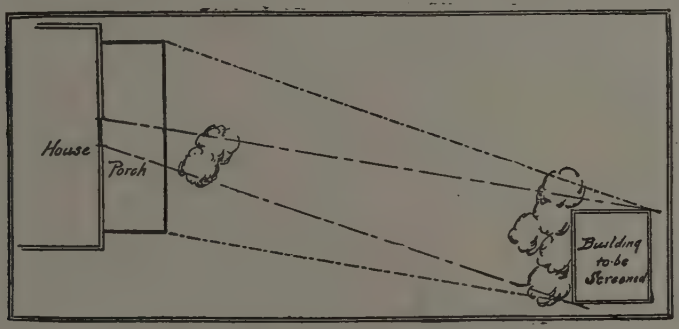
Here is a masterful harmony between terrace wall, shore and sky line, the whole embodying the perfection of dignity and repose

Latticed-top screen for a service yard with a latticed arch entrance; this is obviously a barrier but it is so interesting that it is unresented

The same screen from within, showing detail, and also showing that even a service yard may have its charm

the screen as close up to the building as they may go, in order to use the least possible number—therefore at the greatest distance from the porch.

So we find the rule to be that when the object is larger than the space from which it is to be screened, economy in numbers



The relative sizes of object to be screened and view point determine the location and size of the screen

is served by shortening the distance between the screen and the observation point. But when the object is smaller than the region from which it is to be excluded, the reverse is true. Fewer shrubs will be required if the distance between screen and observation point is extended to the fullest degree.

The material to be planted cannot be decided upon until the position of the screen is thus determined, as its selection depends greatly, of course, upon the amount of space allowed. Naturally evergreens are the things ideally adapted to screening, for they fulfil the purpose winter and summer. If it is not possible to plant a screen entirely of them it is well to make them form a large portion of every such group.

Lack of space need not exclude them. A wall of hemlock will take up as little room as a wall of stone or brick, and it may be

brought to any desired height and will stand shearing into any form. Its impenetrable soft, thick, beautiful green is lovely enough to need no excuse for being.

When a screen has to be situated near at hand this is important. Indeed under such circumstances it is well to present it, itself, as a feature, frankly drawing and centering attention upon it, instead of attempting to make it unobtrusive and unnoticed. Such an attempt is bound to fail when the distance is short; and the irritating suspicion of what may be beyond which constantly recurs when the vision is intercepted by a group that, of itself, is not interesting enough to distract attention, is something to be avoided if possible. It is a subterfuge to feature the screen, but a perfectly excusable one.

Countless ways to make such a barrier itself of special interest will suggest themselves, according to a situation. With a hemlock hedge, if the hedge itself is not enough, a semi-formal treatment is excellent. A pedestaled faun or a row of them, placed before it at intervals of ten to fifteen feet and gleaming white against the green, will never grow wearisome. Or if these are too ambitious for the rest of the place, substitute a sun-dial, an urn, or a garden seat, with a flanking pair of small pyramidal boxwood or juniper trees, or a pair of flowering shrubs.

Ramblers or pillar roses, gathered up and tied to a straight young sapling, take up very little room; and grown this way they are marvelously effective, lending themselves especially to cramped quarters. Simpler than anything else would be a row of these to form columns of bloom against the hemlock's dark green. A selection of several varieties will give a long period of bloom.

Privet grows much faster than hemlock and costs a great deal

less—and it holds its bronzy leaves persistently even against wind and snow and frost. So, for prompt results, and cheaper, it is very satisfactory indeed. Even without a leaf upon its branches an old privet hedge that has been properly trimmed, is so twiggy that it very effectually hides the thing beyond it.

Where there is room enough a thick planting of arborvitæ, hemlock, spruce, or cedar, left untrimmed to form a natural background for a border of flowering shrubs, cannot be improved upon. Shrubs having ornamental fruits or highly colored winter bark may be chosen, and will add to the winter beauty of the group. For screens to be placed at a distance, on a place of considerable size, I should always recommend conifers as the dominant note, with deciduous trees beyond in as natural and forest-like relation as possible.

Whatever the thing may be that mars the outlook from within a dwelling or offends the eye at any point of the surrounding grounds, let me urge that something be done to annihilate it promptly. There is no necessity for contemplating a neighbor's chicken yard from the library windows, nor for tolerating a view of his tool house or wood pile from the front gate. A little contriving will find a way to hide them. Similarly, even remote objects may be blotted from the landscape, if not in one way then in another—for what a bush will not hide a pine tree will.

The reverse process, whereby the outer world is included in one's private grounds or garden—the "planting in" process—is obviously not altogether that, literally. Rather is it a great deal more than that, for the term applies of course to any arrangement which brings an object or a view—usually the latter—into the general scheme of a place, even though it is miles distant from it.

Leaving the intervening space unobstructed and quite free from any planting would seem to be the simplest way of accomplishing this, but curiously enough it often fails utterly. For a view must be more than there to give us the fullest appreciation of its beauty; it must be *there-for-our-benefit.* And something must be done to make us feel this, to assure us unmistakably that this is so, as we look out upon it. It must be incorporated into the place from which we behold it.

The one thing which surely accomplishes this very much to be desired result—the thing that is the key to success in this phase of tree and shrub planting—is a thing that is generally overlooked and unsuspected. Yet it is so important that it cannot be over-estimated nor over-emphasized. Briefly it is this: the dominant line in a view must dominate the planting which carries the eye to that view.

In other words, the lines along which the planting carries the vision must be made harmonious with the object which ultimately meets that vision. They must be what someone has very aptly termed "eye sweet." At first glance this may seem impossible, in some instances anyway. For example, how is the vision to be carried *straight ahead* by means of lines that conform to a sea horizon? Certainly the dominating line of that is horizontal; and a horizontal line is at a direct right angle with the line of vision as one looks out to sea.

True enough; nevertheless the vision travels straight to the seascape over broad lines of planting which sweep to left or right or both, in lines that are generally horizontal, much more swiftly and directly than it does where an effort is made to actually carry it forward with lines of planting that run *against* the horizon. The rule holds because, as a matter of fact, the planting cannot force the vision through tunnels or along ruts or ridges

of green. It can only persuade it and lead it on. It is a matter of suggestion, not coercion. And successful suggestion always presents but the one idea—it offers not the subtlest hint of a resistant force or, in this instance, an antagonistic direction. The idea in the case just cited is all breadth and expansion, and nothing should occur to distract the mind, through the eye, from this.

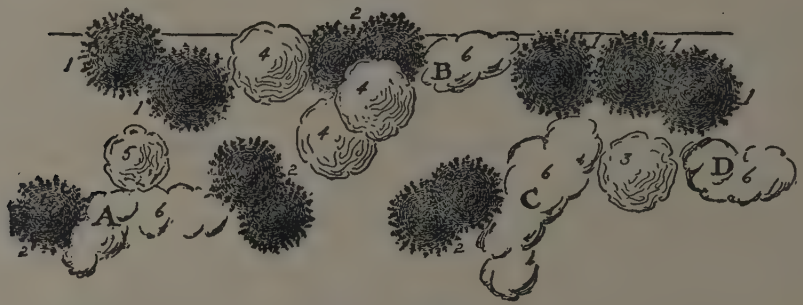
A view that follows a valley requires "planting in" on precisely the same principle—that is on the lines of the valley, whether they be oblique to the view point, or horizontal, or straight away. Similarly a view of field or mountain or stream must determine, by the line which dominates it, just how the vision shall be helped along the way.

I have yet to find an instance where the rule does not apply. Consciously or unconsciously the artist makes use of it in a landscape, and views that give a sense of complete satisfaction will be found to measure up to the standard which it furnishes. It not only legitimately *includes* a prospect in your own domain, but it emphasizes its presence there; and by this emphasis enhances its value to the whole.

Happily, circumstances require the planting of barren tracts to create vistas, rather more often than they require the cutting out of Nature's growth to clear them—happily at least for some of us. I doubt if many who love outdoors and all that lives outdoors, can see a tree felled without a shivering pang of regret. I am perfectly free to confess that I cannot. Yet it is quite as important to eliminate vegetation under some conditions as it is to preserve it under others. But let there be no uncertainty about when to do one and when the other—for the hour in which a tree may be laid low is tragically brief, compared to the half a hundred years or so it may have been growing.

When circumstances force a choice between trees and a view, and it is the *only* view, choose it every time—unless there is chance for an interloper to come between and steal it from you at some future day. Settle this beyond all doubt. Never open a vista that may end in an eye-sore some time, through a neighbor's freak, or folly, or indifference.

But do make as much of the world your own as you can, right down to the rim. There is something none can afford to be without in living with a horizon, either of land or sea, and trees that hide it are cheating you. They are robbing you of soul expansion that is rightfully yours. Condemn them and take them out without compunction. Their room is better than their company under such circumstances—though it may hurt to see them go.



Planting of evergreen and deciduous trees and shrubs forming a screen group two hundred feet long.

LISTS OF PLANTS

EVERGREEN AND DECIDUOUS TREES IN THE SCREEN GROUP

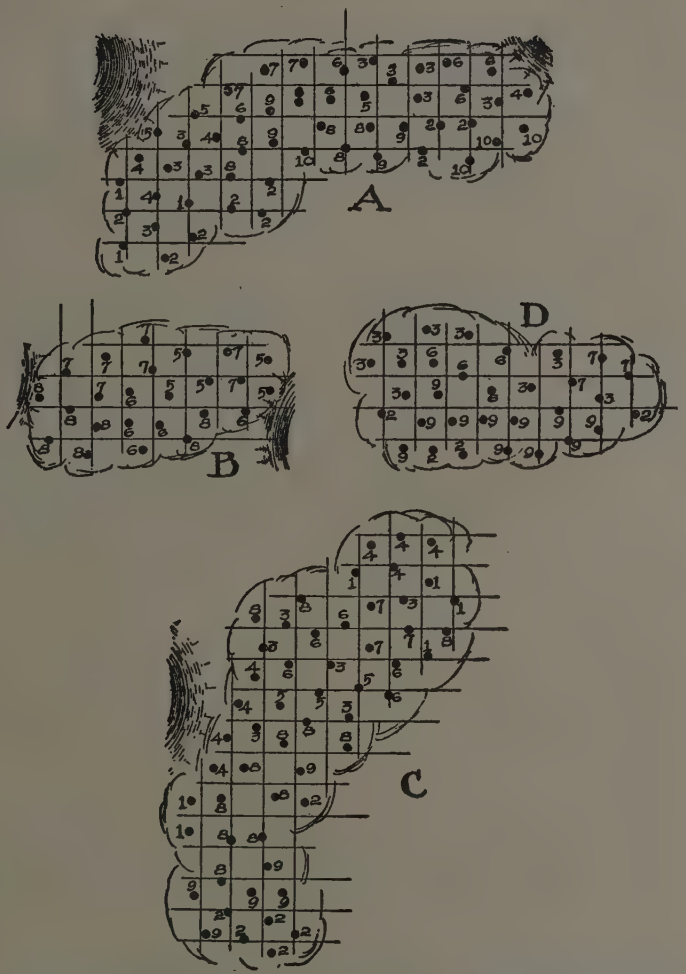
1—*Pinus Strobus:* white pine; one hundred feet high or more; adapts itself to any soil; the most beautiful of all native evergreen trees; care must be used in setting this out and

A very high wall and its immediate foreground should be made so interesting by planting that wonder about what lies beyond will never arise

White marble against evergreens is always enchanting, and fauns are particularly appropriate garden subjects

Nothing is more restful than the long even line of an evergreen hedge, and it furnishes a delightful note of contrast for flowers

Winter and summer a screen of living green is actually a screen, as well as a pleasant feature of the grounds



Details of shrubbery groups from the large screen group, laid off in three-foot squares; this gives the exact location of every plant.

young plants only should be transplanted; the long tap root makes this precaution necessary.

2—*Tsuga Canadensis:* hemlock spruce or common hemlock; seventy-five feet high and over; any soil, not too dry; ranks next to the white pine and is quite as beautiful in its way; easily transplanted.

3—*Betula papyrifera:* canoe or paper birch; sixty to eighty feet high; fairly rich soil, but may be very generally planted; very white bark, peeling readily from the tree; used by the Indians for their canoes.

4—*Populus nigra, Italica:* Lombardy poplar; sixty to eighty feet or more high; any soil; pyramidal trees which are familiar to everyone.

5—*Sorbus aucuparia*: European mountain ash or rowan tree; forty feet high, sometimes more; any soil; white flowers in flat clusters; blossoms in May and June; brilliant red berries follow, which remain all winter; the rowan tree of old folk-lore.

SHRUBS IN THE SCREEN GROUPS

1—*Forsythia suspensa, Fortunei:* weeping or pendulous golden bells; eight feet high; any soil; yellow flowers the length of the branches in early spring; branches arch and dip to the ground.

2—*Ligustrum Ibota, Regelianum:* variety of privet; six feet high; any soil; low and spreading growth; small lilac-like clusters of white flowers; blossoms in June and July; black berries follow.

3—*Hibiscus Syriacus, pæoniflora:* rose of Sharon; twelve feet high; any soil; solitary white flowers with red centers, abundant; blossoms in August and September.

4—*Forsythia intermedia:* erect golden bells; twelve feet high; any soil; yellow blossoms the same as *Forsythia suspensa, F.;* fine clear foliage.

5—*Cornus candidissima:* panicled cornel; fifteen feet high; an upright-growing, dense shrub with smooth gray branches; tiny white blossoms in closely packed clusters, numerous and attractive; blossoms in May and June; ornamental white berries follow.

6—*Cornus alba, Sibirica:* Siberian dogwood; ten feet high; any soil and will do well in sun or shade; erect-growing, with bright red branches and twigs; small white flowers in flat clusters; blossoms in May and June; has bluish-white berries.

7—*Viburnum prunifolium:* black haw or stag bush; fifteen feet high; any soil; tiny white flowers in dense clusters four inches broad; blossoms in April or May.

8—*Spiræa VanHouttei:* VanHoutte's spirea; six to eight feet high; any soil; slender arching branches; dense round clusters of small white flowers which weigh the branches down and cover the bush; blossoms in May and June.

9—*Lonicera Morrowi:* bush honeysuckle; eight feet high; any ordinary soil; flowers white changing to yellow; blossoms in May and June; is covered with very ornamental translucent ruby-colored fruits which persist a long time.

10—*Diervilla, Eva Rathke:* hybrid Weigela; six to eight feet high; a rather moist soil and partial shade; abundant deep red flowers; blossoms in June and on during the summer.

This two-hundred-foot group may be broken up into smaller groups in almost any way that seems desirable. Trees alone

of any cluster may be used, or shrubs alone where only a low screen is necessary. The details of each of the four shrubbery groups show the location of each shrub. These are laid off in three-foot squares, for convenience in calculating the distances and also to facilitate getting the plan onto the ground.

CHAPTER VII

Boundaries

A BOUNDARY is "a visible mark indicating the limit"—those are the exact words—hence there can be no greater anomaly than an "invisible boundary." And happily we are outgrowing the affectation that led us, a decade or so ago, to such violation of good sense as the total elimination of hedges, fences and all other "visible" evidences of limits.

It must have been affectation pure and simple, for there is absolutely nothing in human experience or human instinct which prompts such action. Rather indeed, do these urge an opposite course. A little bit of the earth with a fence around it is the honest demand of human nature, common to all but the anarchists. These want the fences down to be sure—or they say they do—but is it so others may walk in, or because they themselves wish to walk out?

The sacrifice of boundaries in suburban communities has usually been made, I think, under a doubly mistaken idea. There is an impression, widely prevailing, that an effect of spaciousness is thus gained. And there is a feeling, widely cherished, that this particular effect is the great *desideratum*, to which all else should be willingly sacrificed.

As a matter of fact spaciousness is of small consequence, alone and by itself. When it results naturally from conditions

which have been carefully taken advantage of in the layout of a garden, when the greatest attention to economy of space has produced it or emphasized it, well and good. In other words, when it actually exists, where there actually is "space" to take advantage of and to emphasize, then and only then is it suitably made the motif of a place. Efforts to produce it under other circumstances are misguided; none more so than the unhappy obliteration of boundaries to that end.

The position of a dwelling, and its relation to other dwellings or other buildings about it, show plainly where the boundaries of the land with which it is furnished, lie. Hence the observer is never deceived by lack of definite markings. And all the lovely seclusion and privacy which good taste demands for the home, and which may be the attributes of the tiniest scrap of a door-yard if it is well planned, are after all sacrificed in vain. Only barrenness, or garish publicity, or vulgar ostentation result—never the delusion of space fondly and commonly hoped for.

Boundaries should therefore be marked—always. By this I do not mean simply defined as property limits, but marked defensively—aggressively if you will—as a beginning to the gradual process of home building which is to go on within them. They separate the home from the outside world and suggest its aspect of refuge and snug retreat, of safe and pleasant harbor. And the smaller the place and more thickly settled the neighborhood, the more imperative the need for this defensive setting apart; the greater the gain from this resolute planting out of the big world and planting in of the little, individual one.

Suburban plots are usually small and cramped, to be sure—obviously too small for a marginal planting of trees and shrubs; but no matter how tiny the place may be there is some suitable enclosure for it. It is simply a question of finding out what that

An entrance marked with an arch and gate like this gives distinction and character to the simplest kind of enclosing barrier

This architectural boundary does not shut out a glimpse of the garden beyond, yet it is definitely a line between the outer world and the inner

Boundaries of flower gardens are most appropriately devoted to flowers: a lattice allows for the passage of air, yet effectually closes a place in and excludes the outer world

may be. There is seldom anything better for a small place than a hedge. Whether it shall be evergreen or deciduous depends upon the amount which is appropriated for its cost—have the former if possible. Whether it shall be formally clipped or left to grow in natural, informal abandon should depend upon the style of the house and the place generally.

Nature offers the best possible model for boundary planting on a larger scale. Observe her treatment of any irresponsible watercourse where some truant brooklet loiters and hurries alternately on its way; or of an old roadside where she is left undisturbed, or along an old fence or roughly piled stone wall.

Look first at the form—the general shape—of the mass of wild growth. Its irregular skyline will impress eyes that are opened to it at once, likewise its varying width upon the ground—here thick and dense, there sparse and thin. This irregularity and the varying form are more important than its color or than the variety of plants composing it, for the picturesque charm which distinguishes it is almost entirely owing to these.

Then note that the direction of such a boundary changes, even though it may follow a generally straight line, and that the corners are never sharply turned. And finally, record carefully the fact that Nature uses lavishly one or two kinds of plant and allows only a fugitive specimen here and there of others, half hidden among them. A solitary umbel of flaming bunchberry which once caught my eye from beneath a mass of sumach and elder, along a meadow boundary near a patch of old woods, always recurs to me in this connection.

Who but Nature—unless possibly a Japanese—ever composed with such cunning simplicity? Fifty bunchberries would have made more show—but how much less of an impression!

Even where space will permit a border planting varying from

ten to twenty feet in width, it is better to limit the varieties to three or four, rather than risk the jumbled and crowded effect which is so likely to result from the use of too many. Trees may accent a point here and there, but they are not absolutely necessary, for with four kinds of shrubs, properly selected, a sufficiently varied skyline is assured without them.

A boundary which seems to be completely forgotten nowadays is the old plashed hedgerow—a style which came from England in the early days of the Colonies. For uncleared land it is simplicity itself, and it is by no means impracticable on smooth and treeless wastes, though on the latter it requires planting and consequently a little more time for results, of course.

On uncleared land a row of saplings are simply left along the boundary line—saplings of whatever may constitute the growth cleared away. These are then bent down along the ground as close as may be and tied, each to its neighbor, to hold them in place. All the branches on either side of the line of the boundary are taken off close at the boles, leaving only those on what is now the top and the under side of the saplings, to grow. And these are "plashed"—that is they are woven, in and out and about their neighbors, until a network is well begun which each succeeding year's growth will make more dense and impenetrable.

Enough trimming back must be done each year of course, to keep the line even and straight. Climbing and prostrate growing vines or shrubs, set here and there along the hedgerow, soon make themselves at home and help in the boundary building. And wild growths will spring up of themselves, in short order.

Such a boundary is not suitable for very close quarters, naturally, but for larger places, where natural lines may prevail to a great extent, it is much to be regretted that it is not more often used. A planting may very easily be made for it where

all natural growth has long since been eliminated, in which case young trees of the same species as the native growth should be chosen, if possible. Beech, oak, dogwood, alder, hornbeam—anything that is young enough to be soft and pliable, and that is indigenous, is suitable for this woodsy, umbrageous wall of old-world charm and permanence. Three or four kinds may be used, just as in the natural sapling growth.

Within the outer boundaries of a place there are numerous lesser "limits" to be marked. The service or kitchen yard needs its screen, the vegetable garden its protection, the chickens their restriction, and perhaps a rose or flower garden its shelter and seclusion. Each of these inner boundaries should be made the motif for some particularly individual treatment, thus combining utility and beauty. A high service yard lattice is the best possible place for those fruit trees which in English and European gardens are trained on walls.

Arbors and trellises should always mark a boundary instead of being set aimlessly down anywhere, with no reason for being there. In fact if there is any one thing about garden design that I believe needs emphasizing more than another it is this: nothing should ever be built or planted without a reason; a *reason*, mind—not an excuse.

Finally, never leave a fence or wall or other boundary unplanted. Whether the defense which you have adopted is a brick wall or chicken wire strung on gas pipe, be not satisfied with it and it alone. Give it clothing; if there is only room for a hedge inside it or for vines to clamber through or over it, have the hedge or the vines. Always have some living green to frame the lawn and furnish the background for flowers, or whatever may be introduced.

Not a single summer need go by with a fence or a wall barren,

for sweet peas or morning glories—get the Imperial Japanese variety—will cover it in no time, while the slower, hardy stuff is making growth. The evergreen honeysuckles are, of all fence-climbers, the most satisfactory, to me at least. This not only because they are so hardy, and practically evergreen, but because they blossom freely and fill the air with such delightful fragrance. Planted at ten-foot intervals and "layered" for a couple of years —a long branch from each plant laid down along the fence to root, covered lightly at the joints with earth—they form a growth in a very short time so dense and compact that it is virtually a hedge.

FLOWERING HEDGES—TRIMMED OR LEFT NATURAL

1—*Berberis Thunbergii:* Thunberg's Japanese barberry; four feet high; any soil and will endure shade; hardy everywhere; there is no better plant, in every way, for a hedge; dense and defensive, twiggy, thorny growth which becomes like a solid wall if sheared; foliage fine and clean, autumn color brilliant; bright scarlet berries persistent all winter; at all seasons beautiful; set small plants eighteen inches apart if the hedge is to be sheared, twenty-four to thirty inches apart if it is to be left natural.

2—*Berberis aquifolium:* holly-leaved barberry; six feet high; any soil; an evergreen, beautiful in winter color; yellow flowers small and numerous along the branches; blossoms in May; set eighteen to thirty inches apart, as above.

3—*Cratægus Crus-galli:* cockspur thorn; to twenty-five feet high; any soil, though it usually chooses rather rich localities when growing wild; flowers very like the flowers of apple trees, white, in loose clusters; blossoms in May and June;

Absolute privacy and seclusion are secured by such a treatment as this; grounds that are on a higher level than the street are essential

The same idea, executed in loose stone work, with a boxwood hedge and minus the ivy on the wall; perfect seclusion without arrogance

An entrance from a street that is higher than the property; here there is an evergreen planting outside the wall to aid in securing privacy

On a large place a boundary of trees, shrubs and flowers framing a sweep of lawn, suggests Nature at her best

prune not later than August first; set plants twenty-four to thirty inches apart; branches of this are armed with long and extremely sharp thorns.

4—*Hibiscus Syriacus, carnea plena*: variety of rose of Sharon; twelve feet high; any soil; many flesh-pink, solitary flowers all over the bush; blossoms in August and September; prune after flowering; set the plants eighteen to twenty-four inches apart.

Almost any flowering shrub may be used for a hedge that is to be allowed to grow in a natural way. The selection is largely a matter of taste and personal preference. The following are some of the best: *Spiræa VanHouttei*—VanHoutte's spirea; *Rosa rugosa*—Japanese rose; *Syringa vulgaris*—common lilac, white or purple; *Rosa rubiginosa*—sweetbriar rôse; *Hydrangea paniculata, grandiflora*—great-panicled hydrangea.

CHAPTER VIII

Entrances and Gateways

THE destruction of boundaries took away, among other things, every vestige of an excuse for one thing which had always been, on every place, an object of special consideration and painstaking thought. It took away gateways and definite entrance treatment. For naturally where no enclosure is, there can be no opening or gateway admitting to an enclosure. With the "within" and the "without" all the same, and boundary lines obliterated, gateways are unnecessary—though we do see them sometimes, standing beside a highway that is in no way divided from the grounds to which they offer entrance and pretend to give access.

And what an air of mute dejection they wear as if they felt real mortification at the ridiculous position in which they find themselves. For surely nothing is less of a necessity than the fenceless gate across an entrance, around the supports of which one may skip as easily as through it.

But if we restore boundaries, gateways will of course come with them. And we shall then have once more that feature which goes a long way in determining the character of a place; for the entrance to grounds, whether they are great or small, is an important focussing point. Here generalization ends and individualization begins; here the dweller within the portals

The lych gate is hospitably inviting; in a hedge or a stone wall it is particularly effective; the frontispiece shows the latter

Flanked by the poplars and the well placed shrubs, these gate-posts, carrying the particularly graceful gate, focus the attention with the pleasantest of impressions

steps away from the mass and becomes a personality. Hence right at the gateway appear the signs and tokens of that personality. And hence the gateway itself is the place at which to begin with careful consideration.

Like every other part of a place the gateways or entrances from the highway must first of all be appropriate. Stately and massive pillars, supporting elaborate gates, are only suitable for large and stately places, which are enclosed by a wall of corresponding scale and material. But there are gateway treatments for every place, however small, that are as suitable for it as heavy masonry is for the large place, though these are rarely seen and rarely even considered, at the present time.

Quaint charm and a certain exclusiveness are always the attributes of a gateway of any size whatsoever, that is arched over with vines or a trellis, or covered in some manner. I do not know why it is that this covering adds so much, but it does. It contributes a something that makes for decorum and dignity, that instantly commands respect for a place and for its occupants.

Perhaps it is because entrance through such an opening is more like going through a door and into a room or building, than through an ordinary gateway. It is suggestive too of the lovely old walled gardens and dooryards of the South, into the leafy coolness and sweetness of which, through a little door in the high brick or stone wall, one steps with a gasp of surprise, direct from the hot city pavement.

Such gardens are the vestibules of the houses which they lie beside, for the entrance to the house is only reached after admittance to the garden has been gained—and the garden gate fastens with a latch and bolt. The wall of the garden is a continuation of the front wall of the house, in which possibly, on the lower

floor at least, there are no windows. The rooms overlook their own garden only, betraying a fine indifference to the vulgar things of the street. Indeed they go further; they carefully exclude them. And admittance to the grounds is obtained only upon the summons of the bell at the garden gate—or door. Truly these are gardens to live in, gardens with an air about them, even though they are small, and cramped by city conditions.

A wooden arch or a lattice-trellis whereon vines may climb is about the simplest cover for a gateway. And winter and summer it is attractive, if kept trim and neat; but this is a gate treatment which seems to conform only to a certain type of house, and it always has an out-of-place look unless such a house lies beyond it. It is a part of the white paint and green shutters epoch, of the exact perfection of box borders and Colonial door-yards. It must be painted white, like the house, to look right; and it belongs above the picket gate in a spotless, straight and precise picket fence. So this, though an easy way of securing a desired result, is not a very generally available one. For pure Colonial architecture is not common.

Gates with hooded roofs suit admirably the informal and unconventional lines of houses of the half-timbered, bungalow and craftsman type, and have great, and as yet almost entirely undeveloped, possibilities. Executed in the same wood as that used in the house construction, stained the same color, they may have either a shingled or a thatched roof. The latter seems actually appropriate to only rustic conditions however, and to the general surroundings where such construction may be indulged in. The gate itself in such a structure naturally will conform to the rest of the structure.

For the entrance through a rough stone wall these hooded

gates are charming; or through brick, concrete or any solid substance. They are perfectly suitable and harmonious for use with a hedge boundary indeed, if the latter is trained high and is dense and wall-like in appearance. But they are inappropriate to any open means of enclosure, through which it is possible to look.

Universally appropriate to every size and style of place are the arches of boughs and of green which are formed by pleaching shrubs, set at either side of the gateway. Pleaching is a process of tying together and interweaving the branches of separate plants so that they hold fast and mature and continue growth across the space between the plants. It is of all forms of arbor the most enchanting, when well done, with the proper kind of shrub for its medium; but it has never been used in this country to any extent owing to adverse conditions which prevail during our extremes of winter.

Pleached alleys as they were called, were the glory of many great English gardens, but even in England where they flourish famously and have no difficulties of ice one day and sunny warmth the next to contend with, they seem not to be in as high favor now as they were long ago. There is at least one notable example of this work here in America, an arbor near Boston over one hundred feet long.

For the long alleys or arbors a framework of iron-hoop arches, placed at regular intervals, is provided for a number of years, until the branches have grown woody and strong and are well gripped together and interlocked. But for pleaching above a gateway such a framework need not be left for any great length of time. The distance spanned is not great, and the plants, being more free of light and space, make their growth faster. There is not so much roof surface exposed to snow, either, in winter, therefore there is less weight to be supported.

A hedge of privet may be carried in a straight and unbroken line the length of a boundary, its gateway being an opening provided by pleaching an arch at the required point and swinging under it, from wooden posts, a wooden gate of suitable design. Nothing ever looks more lovely in this position than a simple gate, painted white; and this will ordinarily suit any kind or style of house, when used in this way, in a hedge.

The pleaching itself is done in early spring by binding several of the longer branches down first onto the framework, and tying them with raffia. Then they are woven or braided together and tied, carefully and not very tightly, else their tips will be choked. All upstanding and outstanding shoots are cut off when the pleaching is thus well begun, and a second shearing may follow in August, if there has been much growth. Frequent shearing makes for density of growth in this form as in every other.

Privet, beech, wych or slippery elm, willow and the tall growing cornels (*cornus*) may be used for pleaching, besides the plants listed below. Of these the willow and privet will furnish the most rapid growth.

The tough wood of hornbean however is practically indestructible, while the flower effect of the Judas tree or red-bud is exquisite. Consequently these two are given prominence such as they seem to merit.

LISTS OF PLANTS

FOR PLEACHING

1—*Carpinus Caroliniana* (or *C. Americana*): American hornbeam or blue beech; forty feet high sometimes, but very slow-growing; endures pruning particularly well.

A high garden wall has an element of mystery and furnishes the delight of a surprise when the solid door in it is opened

Lines of white are charming whatever the material, and such a fence as this is pleasing from both sides and a perfect screen though very simple

A worthy barrier between the outside world and a home, in the best sense of the word; the construction of this fence is notably strong and permanent; the beauty of the design is striking

What delights may not lie within such a garden wall as this, which, once built, grows mellow and more beautiful with time

2—*Cercis Canadensis:* red bud or Judas tree; thirty feet high sometimes; any soil; rosy flowers very early, before the leaves; get small young plants, not over three years old, as this does not transplant well when older; blooms when four or five years old.

WOODY VINES FOR ARCHES

1—*Lonicera Japonica* (or *L. Halliana*): evergreen honeysuckle; climbs fifteen feet; any soil; very fragrant flowers; blossoms from June to August.

2—*Vitis Coignetiæ:* crimson glory vine; very strong, growing to almost any height; large heavy leaves, unusual color; colors to brilliant scarlet in the autumn, whence its name.

ROSES FOR ARCHES

1—"Dorothy Perkins:" hybrid climbing rose; twelve to fifteen feet high; flowers small, pink, in large clusters; blossoms in July; foliage of this is clean and vigorous.

2—*Rosa Wichuraiana:* hybrid, "Pink Roamer"; fifteen feet high; hardy and strong growing; flowers bright pink, single, two inches in diameter, fragrant; blossoms in July.

3—*Rosa Wichuraiana:* memorial rose; fifteen to twenty feet; hardy and strong with splendid foliage—one of the surpassingly good roses; flowers covering the plant, white, single, one and a half to two inches in diameter, faintly fragrant; blossoms in July and on at intervals during the summer; very ornamental red berries persist all winter.

CHAPTER IX

Deciduous Trees

THERE are two distinct aspects under which the question of tree planting, and the shade and shadow resulting from tree planting, must be considered. One is shade in its relation to buildings, the other is shade and shadow in their relation to landscape composition—in other words one is a purely practical, the other an esthetic, aspect. The small place is limited usually to the former. The practical aspect being therefore of more general application, we will give it first attention.

It is very difficult not to go to extremes in the use of trees. The tendency is invariably to plant either too many or not enough, according as the planter loves "cool shade" or abominates "somber shadow;" and in this connection, as in many others, personal prejudice is very strong and does not take kindly to being reasoned with. There is a standard, however, set by hygienic demands as well as by those of beauty—the two are in absolute harmony, by the way—which will regulate this unruly tendency to extremes, if it is permitted to do so.

In the triangle of air, light and shade that this subject of tree planting resolves itself into, there is one member which we *cannot* live without. We need all three of course, to live happily, and comfortably, and healthily; yet light and shade are not vital.

The burning heat which glimmers over sunbaked lawn and walks robs a home of its rightful attributes of comfort and restfulness during half the year

Fine old trees are not to be had for the wishing, yet there are varieties of not too slow growth which will give a generous shade within a few years after planting

It is with trees as with every other form of vegetation; many of one kind give a distinction and character which a collection of several kinds misses completely

The canoe birch as it grows naturally; no tree is more decorative, nor stouter of heart under adversity, nor more cheerful and smiling and alive with captured light

Life does not depart if these are withdrawn from us; but it does immediately if air is withdrawn. We can live longer deprived of anything else than we can deprived of air—indeed we cannot live at all if it is taken away from us.

This little abstract may seem to have nothing to do with tree planting, but it has. Anything that will emphasize the importance of an element which can be excluded from our houses so easily, by wrong placing of trees, has an important lesson for prospective planters of trees. Of course foliage will never be dense enough anywhere to smother anyone, but it can very easily be dense enough to seriously interfere with that free circulation of air which is so essential to comfort in hot weather, and to health at all times. That is the point.

On the other hand, a dwelling situated in the open, with no trees near it, is subjected to such a glare of sun and heat during the summer as to seriously affect those living in it. Even with awnings or shutters it is impossible, when exposed to full sun, to secure that depth of shade needful to repose in scorching weather. Nor is a breeze sufficient compensation—man needs rest from heat and glare as much as he needs cooling; something to soothe his disquieted nerves as well as something to lower his temperature. A certain measure of darkness is comforting as nothing else can be.

Thus it is evident that air is not enough without shade. We must have both. But ventilation cannot be perfect where the sun's rays do not reach. Heat is necessary, in other words, to help us keep cool. So, though air is the prime essential and shade next, the ideal conditions provide all three. All three are what we must aim to secure, the first in fullest abundance, the second and third in needful proportions.

I doubt if the real secret of the relation between shade and

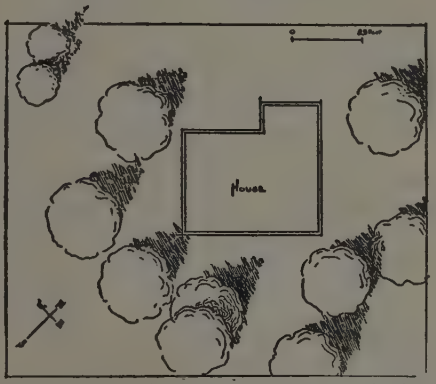
a building—the thing which makes the planting around it a success or otherwise—presents itself very often to the gardener. Certainly I have never found any mention of it in any work on planting, though hints leading in its direction are given in one or two very ancient tomes on the subject. Some gardens, especially those of India and other tropical countries where the art has been greatly perfected, seem to show a development of the idea; but it may or may not be conscious. Yet this one thing is to my mind the most important thing in the whole matter of shade tree planting.

Trees should be placed so that their shadows fall upon the *ground around* a building, rather than upon the building itself. No structure is ever one whit cooler for having the sun kept away from it on any side, if it shines directly and hot upon the earth immediately about it. It may look cooler from without, but that is all. Even a lawn reflects light and heat up and back, into windows and doors and porches; and awnings afford no relief from this reflection, for it rises under them.

A house is itself complete shelter from the sun. Into its windows, however, the sun ought to shine. Every room should have light, and unobstructed outlook—which means of course that trees must not stand very near. But this unobstructed outlook from windows and doors and verandas should be cool and inviting, should rest upon shade instead of a dazzling expanse that glimmers with heat.

Shade around a house means cooler air around it, therefore cooler air coming in at its open windows; whereas shade that is only upon it cannot affect the surrounding atmosphere in the least. Shade at a considerable distance from it is of course offset by the intervening sunny area, whence come blistering little puffs of heat that are the last straw on a hot summer day.

The little diagram of tree arrangement around a dwelling is given as a study in shade only, and to illustrate the manner of finding out what results any given arrangement of trees will give. At noon, with the sun approximately a little south of overhead, the trees will cast their shortest and least shadow, and this will of course fall on their north side. The object is to place them where this shadow as it swings on towards the east and lengthens, in the hottest part of the day, is seen at its maximum from the house.



Arrangement of trees showing their mid-day shadows, which should fall on the ground about the house rather than on the building

This has been effected with every tree as here shown save the two small ones in the upper left hand corner, and the single one opposite on the right. The latter is placed to cut off the hot sun of early morning, while the two former, which might very well be some tall, spire-like tree such as the Lombardy poplar, will stretch their lengthening shadows around as the day wanes, until they reach along the grass to the house at sunset. The tree nearest the house is fifteen feet from it and, though the shade of several will fall on the building's foundations and part of the lower story at some hour of the day, the building itself is actually in the open, and the sun has free access to every side.

In passing it is worth while to remark that a house placed thus at an angle to the points of the compass enjoys the greatest number of those advantages which arise from sun and weather. Every room has sunlight for a little while daily, winter and sum-

mer, and the prevailing south and west breezes will, either of them, strike two sides of the building.

It is very easy and always very wise to work out shade out-of-doors on the ground, using rather long stakes. Where there is not much space this is particularly advantageous; the direction of the stake's shadow will of course be the direction of the tree's shadow. Very exact locating of a tree is sometimes necessary to get shade just where it is wanted.

Always bear in mind that the promotion of individual growth is not the most desirable thing to foster in tree planting. Symmetrical specimen trees are interesting, impressive and sometimes very beautiful as specimens, it is true, but the effect of many solitary, evenly branched individuals, even though irregularly placed, is never equal to masses planted so closely that their branches intermingle and crowd. Remember too, that though it may make no great difference when viewed from a distance, it always assures more charm in a plantation to set two trees of the same variety from six to eight feet apart than to use a single tree anywhere. Once in a great while circumstances may warrant the planting of just one, but very, very rarely.

The species to be used is always a matter for the exercise of very great restraint and caution, and one ought really to know something about trees before venturing to select. It is better to employ many of one or two kinds than one of many kinds; and although there must be a certain amount of diversity to prevent monotony, we should ever be mindful of the fact that Nature continually presents thickets, and groups, and patches, dominated by one variety. Sometimes there are a few of one or two others, but many times not. If it is a beech wood there may be a few chestnuts, a sweet-gum here and there, and now and then a tall, straight maple or an oak, but these are scattered.

The ranks of sleek, gray, satin-coated beeches rising on every side are in an overwhelming majority over all the others combined—a majority of from 75 to 90 per cent.

This proportion is not possible always of course, nor necessary, but if three trees are to be planted, let two be of one kind and one of another. If ten, use five or six of one kind, three of another and one or two of still another, rather than three of one kind, two of three others, and a solitary specimen of a fifth species or variety.

There is a system of selection which has been used in some of the best and greatest landscape parks in the world, that is worth considering by the owner of even a half acre, though he may not be able to apply it fully. This is the formation of groups composed entirely of different varieties of one family or species. Take for example the maples; there are in all between sixty and seventy species, out of which a dozen are found in North America —enough to make up a very respectable group from just native species, even though some must be omitted as not hardy north.

The red maple is a beautiful tree in winter and summer, whether young or old, and grows from eighty to one hundred and twenty feet high; the silver maple attains the same height but is distinctly different in habit, being more spreading. It is swifter growing too, but its wood is soft and branches and even giant limbs are easily broken, therefore it has not the permanent value of the other varieties. The sugar maple, seventy-five to one hundred and twenty feet high, is probably the finest of the genus, when all its good points are considered. Beauty, permanence, shade and utility are some of these, but unhappily "it is the host of many fungi;" and insects aid and abet their malicious work.

The black maple is very like it, but differs in its habit and the shade of its green; the large-toothed maple is smaller and dif-

ferent from all the rest in many ways; the ash-leaved maple or box elder, quick growing and from fifty to seventy feet high—this, by the way, does not look like a maple at all to untrained eyes—is still different; and then there are three small species which are scarcely more than shrubs—the mountain maple, growing to thirty feet, the striped maple which ranges from a shrub to forty feet, and the dwarf maple of the west which stops at twenty-five feet. These are sufficiently dissimilar in size, shape and color to furnish variety in abundance when added to the group.

The form of a tree is important architecturally when it is to be placed in intimate relation with a building which belongs to a distinct style or period. With the Gothic, for instance, trees of the Gothic type should be used—poplars and any of the spire-shaped evergreens are examples—for harmonious lines are more effective than those which oppose. This is of course a fine point and need not ordinarily be raised, for ordinarily our dwellings are not designed with such strict adherence to the purity of a style as to demand such care in their surroundings. It sometimes presents itself, however; usually after a wrong selection has been made. I mention it for the benefit of those to whose case it may apply.

Shade and shadow in their relation to the living picture which all planting aims to create, are subject to the same laws of composition that govern the painter's use of them on his canvas. A landscape is cheerful or gloomy, happy or sad, according as light or shade predominate in it. It is a difficult matter to say just what the proportion shall be, and even more difficult for an untrained eye to determine just what it is, in any given landscape; but approximately light and shade should balance, with the excess running a little to shade under most circumstances.

Sharp emphasis of the contrast between light and shade brings a crisp liveliness into a composition that assures its distinction and interest, under all conditions and in all seasons and weather. Every means by which such emphasis can be made ought always to be taken advantage of. A pool of water in the midst of dense shade, yet so placed as to catch the light and reflect it, is perhaps the most striking example of emphasized contrast, and well illustrates the point.

In this connection it is well to remember that still water greatly intensifies any effect, reflecting as it does shade, or sunlight, or sky expanse. Especially is this true of shade and the gloom that results from it or accompanies it. Deeply shaded water becomes black to the eye, and correspondingly suggestive of dark unpleasantness.

Trees vary greatly in their effect of shade, the variation being due usually to their leaf form. For be it noted that the amount of shade with which a tree impresses its beholder, is not the amount of shade which it *casts*, but the amount which it *holds*. Looking out upon a landscape, it is not the shadows under the trees which meet the eye—only a very small proportion of those are seen at all—but the depth of shade which lies among the leafiness of the tree's head. This, therefore, is the shade which must be considered with trees, in their relation to a picture or composition. Elms, while casting a perfect shadow, do not give the impression of as dense shade as maples, because their leaves are differently shaped and smaller. The sky shows through an elm top, but rarely through a maple and almost never through a horse-chestnut, a catalpa or any other large-leafed and densely furnished species.

In sharp contrast to these heavy trees is the white birch, so delicate in leaf and color that it is hard to associate it with

shade or shadow. Indeed it rather seems as if light had been captured and were held among its tender greens, instead of shade. This tree therefore is particularly suitable for positions near still water. It is lovely in reflection, and never gloomy.

The lines of a large border planting, or the forms enclosed by the lines, are very aptly likened to the land formation along a coast. There are promontories and peninsulas, capes and isthmuses, with now and then a deeply receding curve where some great bay or gulf sweeps in from the sea—the lawn being the "sea"—and here and there an island or a series of diminishing islands carried out from a bold headland. Plant detached trees always in this relation to the mass, either as one single island—a tree or an irregular group of trees; or as a series of islands—an irregular group of trees, a lesser group, and then perhaps one lone specimen. In either case, however, be sure that they are carried out from a point or "headland" of the mass.

Where the most complete imitation of Nature's planting is aimed at, set two or three young trees into the same hole, once or twice among a mass. This ineffectual attempt to crowd each other out is very common among seedlings, in the woods and out. The trick lends interest even to those plantings which are in no sense intended to be wild, and though the idea seems very radical at first, try it. It will prove itself well grounded.

Best of all, however, for a small place, is a fairly close adherence to just one kind of tree—that is, to one variety of a given species. This means a result that is distinctive and full of character, and is more completely in line with the principle of mass planting than any other system. It carries the assurance of success with it, too, for if a particular variety thrives in the soil and conditions prevailing in any given spot, the use of that variety insures a stand of trees that are all robust and strong growers.

To illustrate this scheme of planting from the diagram, the two trees of smaller diameter than the others, in the upper left-hand—or western—corner, are Lombardy poplars. Assuming that the soil is a good average one we may select for the five trees next to these, leading to the front, red maple. This has already been mentioned at the head of the maple family. In addition to being a tall, upright growing tree which, at maturity, furnishes shade from high up, somewhat after the manner of an elm, it is a wonder of beauty in early spring when the clusters of bright red flowers open, long before the leaves. It is indeed spring's most advanced herald among the trees, and in autumn it is again a blaze of glory in the scarlet of its foliage.

Next to the red maples, out at the boundary in front, a silver birch may stand alone. Coming back to the eastern corner of the house, plant a linden nearest, for its fragrance, with a sixth red maple shouldering it and a seventh bringing up the rear in the northern corner.

For special soils selections may be made from the lists given; or, better still, a choice determined by letting it fall, wherever possible, on trees that have at some time flourished in the locality and that may consequently be depended upon to do well.

LISTS OF TREES

FOR POOR SOIL

1—*Betula populifolia:* poplar-leaved birch; forty feet high; has the smooth ashy-white bark characteristic of so many birches; not a long-lived tree, yet valuable for a dry and deserted sterile ground.

2—*Prunus serotina:* wild black cherry; one hundred feet high;

white flowers soon after the leaves in the spring; small black fruits; this is a fine tree.

3—*Robinia pseudacacia:* black or yellow locust; eighty feet high; has delicate airy foliage; white flowers in pendant clusters, very fragrant and abundant; blossoms in May and June.

4—*Celtis occidentalis:* hackberry or nettle tree; eighty feet high or more; its one aversion is swampy soil; endures shade, so may be planted under or with other trees or in a dense group; in appearance this is something like an elm to a casual observer.

FOR LOW AND WET SOIL

1—*Quercus bicolor* (or *Quercus platanoides*): swamp white oak; seventy feet high, sometimes more; a fine and sturdy tree with pale bark, shaggy as it ages; silvery-green foliage in summer turning to yellow in the autumn; this tree likes a fertile soil, in swamps or on borders of streams.

2—*Betula nigra* (or *B. rubra*): red or river birch; eighty feet high; bark reddish brown or gray, separating and rolling back so that the lighter, warm, rosy tones of the inner layers show; shaggy and picturesque; this will thrive even on swampy land that is under water for lengthy intervals, or on banks of streams or ponds.

3—*Fraxinus nigra:* black ash; fifty to eighty feet high; very slender trunk; bark dark gray, even, and closely furrowed; foliage very dark green; grows on the banks of streams and lakes, and in deep swamps.

4—*Larix Americana:* American larch, tamarack or hackmatack; fifty to sixty feet high; narrow and rather pyramidal when young, but spreading somewhat, later; larch is a needle-leaved, cone-bearing tree that *is not* evergreen; inhabits

deep swamps and bogs and prefers northern exposure; grows rapidly; this must always be transplanted in very early spring only, before the growth has shown any signs of starting; always plant in groups of not less than four or five; the earliest of all trees to put forth leaves; does not cast a dense shade, as the needle-like leaves do not offer sufficient obstruction to the sun.

FOR ROCKY LAND

1—*Quercus coccinea:* scarlet oak; seventy to eighty feet high; leaves delicate, bright and glossy; the autumn color of this tree is a particularly bright scarlet.

2—*Quercus Prinus:* chestnut or rock chestnut oak; sixty to seventy feet or more, with a large sturdy trunk excepting in very exposed high and dry places, where it may not reach more than thirty feet; leaves shaped like chestnut leaves.

3—*Prunus Pennsylvania:* bird, pin, or wild red cherry; thirty to forty feet high unless growing under most adverse conditions, when it may be less; has reddish-brown, satiny bark; white flowers; blossoms as the leaves come; bright in effect, with foliage full of light.

4—*Betula lutea:* yellow or gray birch; sixty to ninety feet high; in northern sections, less than this in the south; bark satiny and giving the impression of a tone of silvery-gray overlaying a warm yellow; the bark and branches are faintly aromatic; the tree is one of the largest deciduous-leaved trees in eastern North America, as it grows in the wild state.

CHAPTER X

Evergreen Trees

LEGEND has it that the piñon was the first tree to rise from the bare, brown bosom of the earth. Certain it is that something deep and elemental stirs the heart when the voices of all this great whispering tribe breathe their mysteries into human ears. And equally certain it is that evergreens always have struck, and always will strike, the supreme note in a landscape—a note that lifts the imagination to splendid heights.

But it is all too seldom that they are planted with reference to this. In modern gardening they are too apt to be "specimens," such as the glaucous-foliaged spruces, or golden arbor-vitæs; or else they are relegated to the merely utilitarian, and planted as shelter belts for something that stands before them and focuses the attention. Which is a great pity, for in either case the real and lofty grandeur of the order is overlooked and hopelessly dimmed, if not altogether obscured.

To be sure, the question of purpose must be kept in mind quite as much here as in all other phases of gardening, for a reason for planting must exist, else there can be no excuse for planting —but this reason need not altogether lack an esthetic side. Precise, straight rows of hemlocks or spruce may afford shelter from the wind, and may hide a view that is objectionable; but it is such planting, utterly devoid of imagination and feeling,

A bit that is strongly suggestive of Italy; certain sites and styles of architecture develop this naturally and without effort, and when this is so, none can decry the effect

One variety of conifer dominates here, and though deciduous trees back up the planting they are an incident and not a feature

A clump of Mugho pines in the bay of a driveway does not obstruct the vision sufficiently to be dangerous, yet it affords a rich mass of green throughout the year just where such a mass is needed

and resulting in a forbidding gloom, that is largely the cause of the prejudice which some cherish towards evergreens as a class.

It is quite as possible to group effectively and still secure protection, or shut out objectionable features, as it is to plant in rows to do so—and in the former case a definite interest is created, a bit of true landscape is formed, so that the utilitarian is lost sight of completely in the end. Nevertheless the reason for planting existed and continues to exist, though it is not apparent to the observer.

Fancy varieties of a tree are seldom worth while, whether evergreen or deciduous—and this can never be emphasized too much. With evergreens particularly, the temptation to indulge in some of the many novelties is constantly before the unwary and the true types or natural forms are almost lost sight of. Horticultural forms may be interesting in themselves, but remember that it takes something with a greater claim to consideration than "interest" to build up a beautiful picture. The very quality too that makes them interesting when they are a novelty, is usually the very thing that makes them tiresome when the novelty has worn off. So on the whole it is the ordinary and accustomed variety which wisdom will select.

Nothing is more beautiful than the familiar white pine, which is native over such an extended area of the United States, and which will grow practically everywhere; so what excuse is there for using a novelty in place of it? No novelty can have withstood the test of generations as the native has—if it had it would no longer be a novelty—and the weaknesses it may develop cannot even be conjectured. The changes which age will bring to it are likewise a matter of guesswork. For there are two distinct forms in the life of the majority of the cone-

bearers. The first—the youthful—is regular, pyramidal and somewhat formal; the last—the mature—is rugged and irregular and altogether quite different from anything to be imagined, judging from the earlier. With evergreens, where we are planting for all time, these differences are very important.

The period of transition from symmetry to irregularity comes at about the twentieth to the twenty-fifth year in some, up to the fortieth or fiftieth in others. Hence it is apparent that not until a variety has been grown for fifty years in a given soil and climate, can it be said positively whether or no it is a success under those particular conditions. Fifty years hence seems a long way off in this day and age of haste—and of course it is a long way off—but building a landscape is not a task of to-day nor of this year; indeed it is not a task that the builder can much more than begin. Even with wisdom and industry beyond price at his command, he still must wait on Time.

And Time goes straight ahead, even though the builder's work is ill, quite as bent on finishing it as though it were well, and quite as determinedly piling emphasis onto every point where emphasis can be made to lodge. This is the thought that ought always to be before us—this is the thought that, guided the builders whose work now remains in the wonderful old gardens of the Old World. So, though we may plan for to-day, and this year, and the next, of course—plan to get all into the present and out of it too, that is possible—we shou.d plan ahead at the same time. Patience and this looking ahead are always essential in gardening, but especially so when the subject of the work is evergreens. Keep an eye constantly to the future. Have the quick-growing, short-lived trees for the immediate need, but do not omit planting the slower-growing, long-lived species to take their places, in the course of time.

One kind again; the greatest depth in the plan on the ground is at the point of greatest height of skyline; this is invariably true of well arranged planting

A well-placed group of young hemlocks which will be exceptionally fine as they mature into a spicy grove

These hoary old veterans temper the heat of summer and the cold of winter but do not shut away light and air; even slow-growing boxwood ought never to be placed quite so near and under windows, for in time it will grow over them

All that has been said about fancy varieties and novelties applies with even greater force to the "golden-leaved" and "silver-tipped" conifers so much in use at present. It is always a question whether any tree or shrub with abnormal foliage—and variegated foliage is, with one or two exceptions, abnormal—is in good taste; and the doubt makes it safer to draw the line quite this side of planting them, altogether. Certainly no artist would ever dream of painting them, unless many were grouped together in such a way as to give them the meaning and force which unity might express.

This is the test which will ultimately decide the merit of any garden work. No planting can be regarded as a complete success if it does not offer, finally, a subject worthy canvas and paints and brushes—and a cultivated eye and trained hand to use them. It occurs to me that a solitary blue spruce in the middle of a lawn will hardly permit even its fondest admirers to hope or expect this for it.

Generally speaking, the grouping of evergreens should follow the same lines as the grouping of deciduous trees. Fewer will ordinarily need to be planted however, because of their stronger individuality and dominating qualities. They may either be combined with deciduous trees or planted by themselves. In combination with the former, however, they should occupy the prominent positions, and should be in either a decided majority or a minority. Never use an equal, or nearly equal, number of both kinds.

Usually one variety of evergreen will be found repeated more or less often, in any patch of woods or within any special area, just as we have noted previously that one variety of deciduous tree is nearly always to be found dominating in a similar growth. The reason of course lies in the fact that all the conditions are

exactly suited to give to that variety a little advantage, and though other trees may not be crowded out altogether they do not multiply as rapidly as the favored one. This leads to a "mass effect" quite in line with what Nature continually offers—and furnishes the best example possible of ideal planting, from the practical as well as the esthetic side. It is, of course, in the last analysis, a survival of the fittest.

Learn what evergreens are best suited to a place before planting any, by ascertaining what are native to the region, and to the immediate territory. Then make use of these or their nearest relatives in all broad-scale planting, governing the selections, of course, by the soil conditions of the particular piece of land to be planted. A tree that may thrive on a mountain side will very often not tolerate the moist valley at the mountain's feet, hence the necessity for judging from those trees found growing in the *immediate* territory.

Pines do not like close, heavy, clay soil, nor will they do well on shallow soil because they have a long tap root. Loose sandy earth suits them best; and because they have this tap root that reaches deep for moisture, they can endure dry soil. The white pine is not so particular as the rest of the family, however, and will usually adapt itself to uncongenial places very cheerfully. Pines are very intolerant of shade, but the latter will make the best of a certain amount of this, too.

Cedars are at home on wet, even swampy, soils, though as a matter of fact they will do better where it is dry. They will stand some shade.

Spruces are shallow-rooted, which always means that a tree is adapted to soil that is moist—and they thrive in extreme cold, being natives of high altitudes. They mind shade less than either of the two first named.

Firs are trees of high regions too, and some can not endure a dry, hot climate at all, unless shaded and given the coolest spots.

Hemlocks are not exacting and will grow in almost any kind of soil providing it is moist. Hemlocks and white pines, by the way, are one of Nature's combinations and may often be found growing together in large forests, which is a hint toward grouping. Hemlocks stand shade well, as well as the close shearing which makes them so good for hedge service.

The use of two or three varieties of a species is not to be recommended with evergreens as with deciduous trees. They do not take kindly to mixing, and either the one variety chosen should be used, or the combination before referred to which Nature herself furnishes in the hemlock and pine. This, with deciduous trees interspersed, is as fine an arrangement as it is possible to make. Wherever it is possible to make an evergreen group the background for some floral display it is well to do so, providing the flowers do not detract from the trees. The whole should form a picture rather than either one furnishing a feature.

Rhododendrons fill the requirements of such a position perfectly, being themselves evergreen and harmonizing as almost nothing else can with the dignity of the trees. It is not by any means essential, however, to carry out such an arrangement in order to get the best results from planting the latter, for they are sufficient unto themselves.

The form of the smaller and slower-growing species is of more importance than anything else concerning them, for these are essentially the material for small places and for formal work. Some of these are very thin and long and pointed, others are broad and low and globular; selection in this instance should be guided by the style of the place, of the house and its garden,

rather than by any thought for the garden's future appearance. This attitude is allowable to meet the limitations of a small place, if one is willing to throw out unsuitable material as fast as it becomes unsuitable. As a matter of fact, the growth of the horticultural varieties which produce these various forms is so slow that, after all, changes will seldom need to be made because of increase in size; and the pruning shears may be depended upon to keep them to the lines which they are expected to fill, if they show any tendency to overstep. In many, the forms are pretty well fixed and they adhere to them without pruning.

Boxwood should find a place in every garden, great or small, the selection of its form also being guided by the style of the garden or of the house. The formal, pyramidal box naturally takes its place in the formal, stiff and precise garden, or at the entrance of the dwelling that is symmetrical in its line. The rugged and unconventional bushy box suggests old dooryards, and the easy lines and picturesque charm of farmhouse or cottage, or the tangle of old-time gardens—suggesting at the same time its suitable environment beyond doubt or question.

Ordinarily evergreens are not regarded with any consideration for their shade, yet they offer a most restful depth of it and a cool dimness that deciduous trees do not have. The nearest trees to a dwelling, however, should be from twenty-five to thirty-five feet distant, where their shadow cannot fall upon it. Always plant them near enough together to support and defend each other under the stress of severe storms, thinning out in subsequent years when they begin to crowd. And plant always two deep at least—two deep in an irregular grouping, not two rows, one back of the other.

And, finally, place the deciduous members of a boundary

group or a screen mostly in the background to allow the evergreens to show dark and well defined before and among them. Leave plenty of room between the two kinds of trees—rather more than between the trees that are the same—remembering that deciduous trees expand very much more and very much more rapidly than evergreens, and therefore need a wider berth.

LIST OF PLANTS

FOR POOR SOIL

1—*Juniperus Virginiana:* red cedar; usually about fifty feet, sometimes one hundred feet high; this naturally reforests arid hills and stony, barren, abandoned lands; will grow also on the seashore.

2—*Pinus rigida:* pitch pine; sixty feet high or more; becomes contorted and picturesque with age; plant in groups of several.

3—*Picea pungens:* Colorado spruce; sometimes one hundred feet high, and rapid-growing for an evergreen; foliage is a light silvery green, becoming true green with age.

FOR WET SOIL

1—*Cupressus thyoides* (or *Chamæcyparis thyoides*): white cedar; seventy feet high or more; grows in swamps which are under water part of the time.

2—*Thuya plicata:* Nootka Sound arborvitæ, or red, or canoe cedar; one hundred and fifty feet high or more; native to low moist bottom-lands; this has not been used as much as it should be, but happily it is growing in favor; it is truly a giant arborvitæ.

3—*Thuya occidentalis:* white cedar or common arborvitae;

reaches sixty-five feet high in the wild state were it grows thickly on swamp grounds.

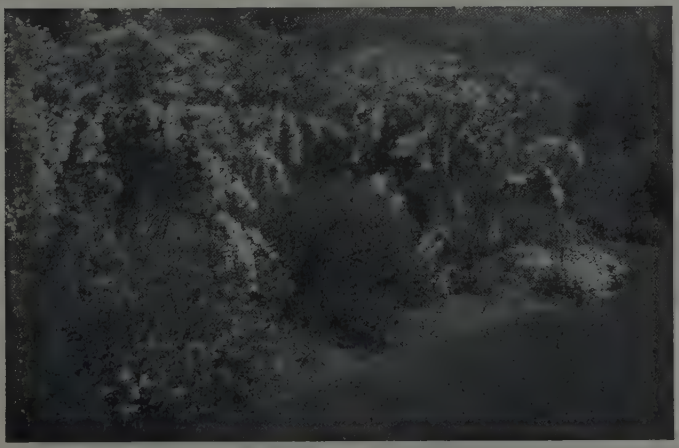
EVERGREENS FOR ROCKY SITUATIONS

1—*Pinus montana:* Swiss mountain pine; variable, being sometimes forty feet high and sometimes a mere shrub; this is more likely to remain in the latter class and stop growing when it has reached a height of from six to twelve feet.

2—*Picea Engelmanni:* Engelmann spruce; sometimes one hundred and twenty-five feet high at maturity; plant always in a group.

3—*Pinus monticola:* silver or mountain white pine; one hundred feet high; dense in growth; silvery in color.

Shrubbery very close to house foundations is always doubtful; this mass is well arranged as to height, but the effect would be better if the line were interrupted and the house wall allowed to show part of the way



In landscape work the individual specimen must always give way to the effect of the mass as a whole; the number of spireas here is of no consequence; the thicket effect is

Common elder is beautiful in flower and in foliage but its merits have not been appreciated fully as yet; if it were difficult to grow perhaps they would be

Deutzias are of infinite variety and range from pure white to rosy pink; one specimen is pleasing, but how much greater the beauty of a half-dozen in a riot of bloom

CHAPTER XI

The Use of Shrubs

THERE seems ever to have been an antagonism between the view of a plant which the horticulturist holds, and that of the landscape architect. To the former it exists as a specimen, an individual that is filling an important place in the world, in and by itself. The spread of its branches and the size and quantity of its blossoms are the things by which he judges it, and by which he values it. Consequently the more these are increased, the more any characteristic is exaggerated in it, the more valuable does it become to him. Naturally, therefore, his whole aim is to provide it with those surroundings which will promote such exaggeration to the highest degree.

But the landscape architect views it from a very different point. A plant is to him what a single note is to the musical composer, or what the tubes of raw, pure color are to the painter. One note, struck by itself, can mean nothing, no matter how loud and startling or soft and sweet the tone; one color in a great vivid blotch on the canvas expresses nothing, no matter how clear and striking it may be. It is only as the note is brought into relation with other notes, the color with other shades and colors, that a composition takes shape. And plants are subject to the same law, producing nothing worthy the name when isolated.

It seems, sometimes, as if the time would never come when this truth about them would be realized by everybody. Year after year sees the same mistakes made, even on the great estates where large sums have been paid for the services of professionals, presumably skilled and cunning in the craft. Yet with all the money spent the well planned and well planted place remains the exception, so rare as to be startling when one comes upon it; while examples of wrong ways, wrong from their fundamental ideas up, are everywhere. Almost every village and surburban street presents a solid front of garden misconceptions disheartening to behold.

The two views just cited are of course antagonistic, and everyone can readily see how utterly impossible it is ever to make them anything else. So no time need be wasted in attempting to harmonize them. Instead let us get at once to the business of seeing what reasons there are for adopting one and rejecting the other.

First of all it is necessary to realize that there are certain special things, grown for show, and for competitive *shows*, which have no more to do with gardening, considered as a fine art, than chalk has to do with cheese. The biggest Dahlia in the world, winner of all the prizes, would add little or nothing to a garden's beauty if it stood outdoors, among the growing things. The carefully trained and framed chrysanthemum plant, bearing a thousand blossoms, might as well—yea, it might better—be a coreopsis bush, for all the effect it would create in relation to other plants in the border; and the rose bush, coddled and pruned and petted till it produces a single four-foot-stemmed American beauty, becomes a sorry spectacle, once its solitary flower is plucked. Yet the Dahlia, the chrysanthemum and the rose are universally acclaimed as wonderful horticultural products.

These may be exaggerated examples, to be sure, but they illustrate the point we need to impress upon our minds—that individualism is *not* the garden's ideal. And though they are exaggerated, they are after all only the result of going a few steps farther along the path of individual culture than the usual practice goes; the practice which aims to plant shrubs in isolation "so they can develop."

Any view that persistently puts the *development* of a shrub before other considerations governing its location, is a mistaken one; and until we once and for all get over cherishing such views we shall continue to go wrong in design, and to fail in attaining our proper effects. Abandon completely and absolutely the mental picture that dissociates "shrub" from "shrubbery," and create in its place a picture which unites the two so closely that you will come to feel them one object, and synonymous terms.

Then live up to this creation determinedly, and let no remarks of misguided neighbors—however well-meaning they may be—about things choking to death and having no chance to grow, shake your resolution nor divert you from your course. They may think you crazy—that is to be expected—but you will know that you are not. And time, and your grounds, whether little or big, will be your vindication; so what matter what they think?

It is very simple if one wishes to reason it out. Any plant, set in an open space and encouraged to "develop," is but a few steps short of the plant trained with the avowed purpose of producing phenomenal flowers or fruits: phenomenal flowers or fruits are of absolutely no merit as garden ornaments, and the plant trained to produce them suffers a loss in the process exactly corresponding to their gain. Hence it follows that a plant—or, to speak more definitely, a shrub—set singly, as a

specimen, in a garden or for the adornment of grounds, is an anomaly. Grounds are not adorned nor ornamented by shrubs of this kind, for it is the shrub itself which holds attention under these circumstances. Wonder and perhaps a certain crude admiration are excited by it—but the idea of the place as a whole, or of a garden, is lost sight of completely. There is no impression of charm and beauty resting upon all; of a dwelling rising from a suitable setting; of an outdoors that appeals and satisfies; of a picture that is complete. These things are all sacrificed to a monstrous something calculated to draw an astonished "oh!" from the beholder.

With the resolution always to mass "shrubs" until they form "shrubbery" and to always plant them so near together that they will interfere and encroach upon each other outrageously, firmly and immovably fixed so that nothing can shake it, let us examine first the points that come up in laying out the ground plan of such border or mass. The ground plan naturally takes precedence whether it be gardening or architecture that one is engaged upon; consequently it is upon that that the gardener must concentrate in the beginning.

Regularity, so far as that implies planting in rows or squares, is of course to be avoided in an informal shrubbery border. But haphazard, grotesque, zig-zagging is not the way to avoid it, neither is what nurserymen call "staggering." A carefully worked out plan is the only way, with an equally careful transfer of it from the paper to the ground. Such a plan is made by first drawing in lightly the general large curves, representing the inner line of the shrubbery—the line next to the lawn. It is assumed of course that the plot to be planted has been laid off to scale on the drawing paper, with all existing features shown.

Then, starting at either end, the first shrubs are located at

A thicket composed of many kinds of mock orange, several of each being used; the period of bloom varies enough to make such a group interesting and the inflorescence is quite different in different varieties

A hedge of rose of Sharon is a mass of bloom when flowers are few; this stands practically any amount of cutting back if it is desirable to keep it to any given height

Here not an individual shrub shows itself, every one being lost in the mass; the disappearing drive allures because of the promise which the vista of bordered lawn affords

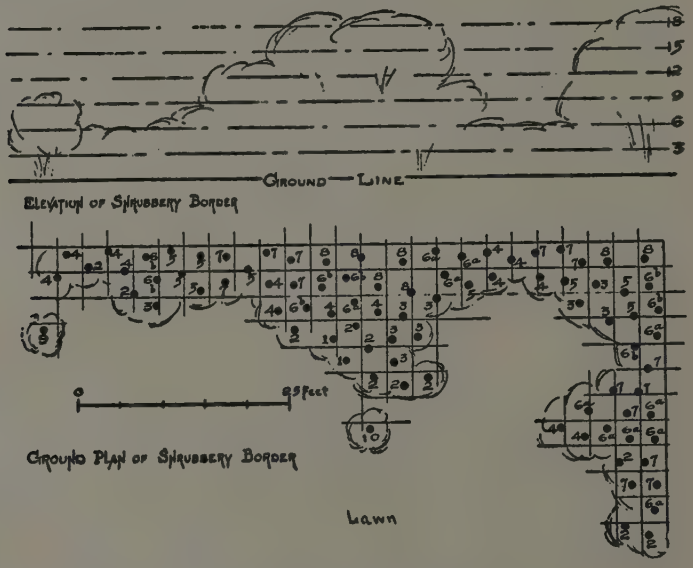
prominent intervals along this line—that is, at the deepest and the shallowest portions of the border. With these placed as a sort of general guide, proceed to work from the back out towards this line, leaving a space of four feet between the tallest and largest growing shrubs which make up the back planting. Come forward to the boundary border line with the lower growing shrubs, finishing with the lowest of all, planted about two feet back of this line so that their branches may fall approximately upon it.

This working from background to foreground insures an easy and flowing line at the edge of the border, whereas the reverse method—placing the shrubs along this inner border line first and working thence back to the outside—though easier perhaps, is likely to result in a stiff and hard inner line that is neither natural nor beautiful. Do not attempt to have the shrubs along the foreground line equally distant from each other; rather avoid this and let them come as they will, keeping them always from two and one-half to four feet apart at least. They may in many places be five to seven feet apart.

The species and variety of practically every one should be determined as the shrub is set down upon the plan, otherwise difficulties will arise over the distances between them. In a very large planting this is not always essential as there will be certain locations calling for many of one kind. But even here it is well to have a general idea of what each lesser group composing the large group is to be, as they are set down. It takes time—but it is the only thorough way.

For field work the plan is divided into squares of convenient size, and every shrub in a given square is located by a stake driven into the ground, which is labeled to correspond with the label on the plan and on the shrub. This is done before any planting in that particular square is begun.

Reference has been made in a previous chapter to sky line. It is as much to be considered in planting shrubs as trees, for although the top of shrubbery may not cut the sky when viewed under ordinary circumstances, the outline of its top, taken as a whole, has an important place in a composition. To give this sufficient



The lawn ought always to run into the border, making little vistas that suggest distance and space

variation there must be intervals of comparatively low-growing varieties that are not backed up by larger specimens; and these intervals, constituting the variation in the "profile" or vertical section of the border, must be as carefully thought out and planned as the ground plan of the group.

Generally speaking, they will take the ground plan for their guide and rise from it, quite as the elevation of a building rises from its plan; but here, as in architecture, the designer must

have the instinct which adopts the right form and rejects the others. The diagram appended shows the principle, and the manner in which the plan serves as a guide to the profile. Notice that wherever the border deepens on the ground, it rises higher in the elevation. By determining the ground plan first therefore, the elevation will rise from it almost automatically, with no trouble to the designer and no confusion. And a glance at the elevation shows exactly where the tallest and the lowest shrubs must stand, and the intermediate ones as well.

Make your plan therefore first, in rough sketch form; then develop the elevation or profile above it on the paper—this for convenience in carrying the distances and lines directly from one to the other—and then proceed to the planting detail. This matter of lines and forms sounds very dry and technical I know when one is longing for lilacs and roses and all the summer's sweetness, and I can well imagine the impatience with which many a heart will burn at the idea of calculating beauty in so unpoetical a fashion.

But the most careful calculation is all that genius is, really —an "infinite capacity for taking pains"—and no lovely garden ever just happened. I have said it before but it will bear repeating, many a time and oft. For it is so little realized—and so true. Consciously or unconsciously the creator of every beautiful garden has calculated every effect of line as well as color, of background as well as foreground, of light and of shade.

And so I have placed the emphasis on plan and line especially, for just the reason that the thought of them is so hateful to so many. They are classified in the adult mind about as scales, and five-finger exercises, and grammar are in the mind of the child—things to be slid over and gotten around by hook or crook if possible. But you cheat yourself on your garden, by such

evasion, quite as much as you would have cheated yourself on your English, if you had been allowed free rein as a youngster. At last, however, with the plan and sky line outlined before us, we can go on to the joyous phase of shrub planting—the phase which has to do with their greenery and their flowers and all their lovely poesy, the phase which is commonly considered to be *real* gardening.

Briefly, there are five things constantly to have in mind when grouping shrubs; their height, their time of flowering, their flower color, their habit, and their preference for sun or shade. And there are two things to be aimed at in every mixed shrubbery border; succession of bloom and harmonious coloring. The profile drawing will show locations as to height, the ground plan locations as to spread—or habit. These two are therefore practically disposed of and predetermined, so the questions of inflorescence and sun or shade are all that one need trouble about. The plans here given are detailed for sun; partial shade will not require any change however, and complete shade is a circumstance that is hardly likely to arise in a border of this extent.

Finally, as the last word, let me urge the open center. This is more important than grouping, or bloom, or sky line, or anything else. Always confine shrub masses to outer edges or boundaries, leaving broad sweeps of lawn framed by them, but never cut into by either beds or solitary bushes. The single shrub which the plan shows at the end of the mass, and the one isolated from it, yet a part of it, midway, are not exceptions to this rule, for neither of these breaks the continuity of the mass. That is the test always—the *continuity of the mass*—whether that mass is lawn, flower border, shrub border, or woods and thicket.

LIST OF PLANTS

SHRUBS USED IN THE BORDER GIVEN

1—*Hypericum prolificum:* St. John's wort; usually three feet high—varies; any soil, sun or shade; dense-growing with glossy, dark green leaves; flowers yellow, large and numerous; blossoms continuously from July on through September.

2—*Deutzia gracilis, rosea:* dwarf Deutzia; four feet high; any soil, sun or shade; flowers white, tinged with pink, in long loose clusters; blossoms in May.

3—*Lonicera Morrowi:* Japanese bush honeysuckle; six feet high; any garden soil; flowers white, turning to yellowish; blossoms in May; covered with handsome ruby berries from late in July on.

4—*Diervilla, Eva Rathke:* hybrid Weigela; six to eight feet high; branches erect but arching and spreading; likes a rather moist soil and prefers partial shade; shade is not essential, however; quantities of deep carmine-red flowers; blossoms in June and on during the summer.

5—*Forsythia suspensa, Fortunei:* golden bells; three feet high; any soil; upright growing with low arching branches; yellow flowers along every branch and twig; blossoms before the leaves appear in earliest spring; foliage dark green, clean and attractive.

6—*Hibiscus Syriacus:* Rose of Sharon; twelve feet high; any soil; erect, almost stiff, upright growth; blossoms from July on through September.

a—variety Duc de Bretagne, rose-colored flowers.

b—variety Joan of Arc, pure white, very double flowers.

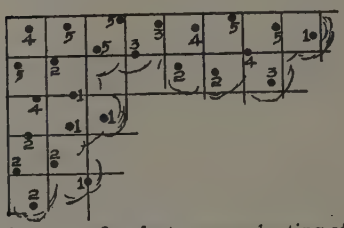
7—*Syringa vulgaris:* common lilac; twelve feet high or more; any ordinary soil; familiar lilac-colored flowers; blossoms usually about the middle of May on into June.

8—*Viburnum Lantana:* wayfaring tree; twenty feet high; any soil; small white flowers clustered in dense flat cymes; blossoms in May and June; scarlet berries follow.

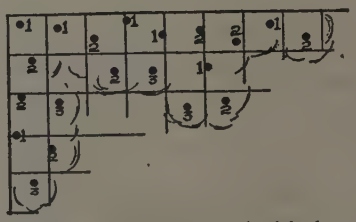
9—*Amygdalus communis* (or *Prunus Amygdalus*), *rosea plena:* double rose-flowered almond; peach-like tree, sometimes ten to twenty-five feet high; any soil; flowers large, pink and showy, before the leaves; blossoms in April or May.

10—*Hydrangea paniculata:* hydrangea; ten to twenty feet high, tree-like; any well drained soil, with plenty of moisture; flowers white, in large loose panicles, less heavy and dense than in *Hydrangea p., grandiflora*, but more pleasing in many ways; blossoms in August and September.

This border requires eighty-eight shrubs to plant it. These are divided among the ten varieties as follows; of number 1, two are required; of number 2, eleven; of number 3, nine; of number 4, fourteen; of number 5, nine; of number 6-*a*, eleven; of number 6-*b*, eight; of number 7, fifteen; of number 8, seven; of number 9, one; of number 10, one.



A twenty-five foot corner planting of perpetual fragrance



Same size corner planted with three of the commonest wayfarers

SHRUBS IN SWEET-SCENTED BORDER

1—*Callicarpa purpurea:* purple "beauty fruit"; four feet high; any good soil; small pink flowers in abundance; blossoms

in August; branches slender and later weighted with quantities of pinkish-purple berries.

2—*Philadelphus Lemoniei, Avalanche:* hybrid mock orange; six feet high; any well drained soil; will grow under trees: branches arching and graceful; flowers white, showy, along the length of the branches, very fragrant; blossoms in June.

3—*Calycanthus floridus:* sweet shrub, Carolina allspice or strawberry shrub; six feet high; any well drained soil, sun or shade; solitary brown flowers, very fragrant; blossoms in June; branches and leaves also fragrant.

4—*Clethra alnifolia:* sweet pepperbush or white alder; eight to ten feet high; likes a moist soil such as woods afford, but does well in border; small white flowers in spikes, showy and fragrant; blossoms in July and on through September.

5—*Benzoin odoriferum:* spice bush; twelve feet high; any soil; tiny yellow flowers along the naked branches; blossoms in March or as soon as frost is gone; very fragrant, wood and leaves also aromatic.

SHRUBS IN BORDER OF THREE VARIETIES

1—*Rhus typhina:* staghorn sumach; eight to twelve feet high; any soil; fine glossy foliage, brilliant autumn color and characteristic "sumach bobs" all winter.

2—*Sambucus Canadensis:* common elderberry; six to eight feet high; any soil; flat clusters of white flowers, familiar; blossoms in early June; berries tiny, black, edible.

3—*Rhus aromatica:* fragrant sumach; low-growing usually, three to four feet high, or less; spreading as an undergrowth; fine autumn color and foliage velvety in texture and attractive always.

CHAPTER XII

The Place of Flowers

IT is decidedly contrary to our American ideas, but it is nevertheless a fact that a garden may be absolutely flowerless, and yet be lovely. And on the other hand, one may have a world of flowers and yet have no garden, in the true sense. In other words, flowers do not make a garden, revolutionary though the thought may seem. If you are tempted to doubt, consider how many places you know where it is possible to go and look at quantities of beautiful flowers, but quite impossible to feel or to say, as you look, "what a beautiful garden!"

The conception of them which immediately establishes their real place, holds them to be the garden's jewels—the bright gems with which its design is embellished and "picked out," as a jeweler would say. They may be used in quite as lavish abundance with this idea prevailing as any enthusiast can wish—but they will be used quite differently from the customary fashion of planting wherever fancy strikes, and the space presents itself.

However beautiful the ruby, the opal, the sapphire may be, lying unset within one's hand, none will deny that their loveliness is brought out and shines to far greater advantage when the craftsman has worked them into proper relation with each other. Associated with the metal that forms a clearly thought out and

purposeful pattern around them, supporting them and binding them into place, their beauty gains as they attain to the dignity of meaning, of purpose. And, to carry the analogy still farther, the designer gives the eye intervals of rest from the dazzle of precious stones in a piece of jewelry, which correspond exactly to the relief from color and brilliance which should be provided for it in the garden.

The rule of contrast that came in for attention when light and shade were under consideration, here presents itself again. Applied to the question in hand, it shows us at once that there must be places where no flowers bloom, in order to accent and emphasize the flowery spots. It more than hints that the secret of brilliancy and a spirited liveliness in the garden lies in the liberal use of white flowers—because, of course, white furnishes a much more vivid contrast with many colors than green, and contrasts more vividly with green itself. Indeed, white blossoms are in one way the most precious of all—the diamonds of the collection, that enhance the colors of all they are brought in contact with and at the same time reconcile them to one another when they are inclined to clash. But this I mention only in passing; the questions that have to do with color are premature just here, for the first proposition must deal with the locating of flowers in the garden—with the manner of determining their place in any particular garden design.

Sometimes it is easier to find out what ought to be done by eliminating the things that ought not to be done than by any other process. I think this is especially true of gardening, from the landscape or pictorial side, at any rate. We have grown so accustomed to doing it wrong that the habits are fixed, and we cannot oust them by the accepted simple plan of ignoring them, and cultivating the right ones in their places. They simply

will not be crowded out, even though the better ideas are required. They crop up continually, like noxious weeds—so up by the roots let us drag them, and start anew.

First, here is the flower bed habit. This is surely the greatest abomination of them all! It is going to die hard, even with those who truly wish to kill it. Many there are, alas! who will not wish to; for its star and its crescent, its circle and its triangle, have so impressed themselves upon its victims that they cannot see a stretch of smooth and velvet turf without an instant temptation to fall upon it, and carve some one of these mystic symbols from its heart.

But lest I seem unduly prejudiced, let me hasten to say that there are places for flower beds—a few places—and that, *in their place*, I am not objecting to them in the least. True, I have never been able to see any beauty in the gimcrackery which shapes them on the elaborate lines that good, wise, old Bacon dismissed contemptuously with, "They be but toys; you may see as good sights many times in tarts"—but they need not be shaped on such lines. He spoke of the parterre filled with colored sands instead of flowers, to be sure—but the fancy beds of to-day, filled with exotic and perishable stuff, are the direct descendants of these sanded parterres; "knots or figures with divers-coloured earths."

A flower bed brings us again to the flowers' likeness to jewels; for properly placed, a bed occupies a position in the garden corresponding to the position of a properly used jeweled pin or buckle on a robe. (I say "properly used" to evade the dictum of fashion which is sometimes known to strain a point for the sake of adding a little extra trimming.) A study of the costume of any well clad race will show at once that pins clasp two portions of a garment together, or hold the folds of some drapery in

Everywhere in a landscape there is opportunity for some kind of flower; bulbs may be naturalized where nothing else can grow

New England asters are beautiful and are one of the most satisfactory things which the garden can harbor, blooming late and long

A flower garden rich in color and bloom, where everything lives in delightful friendliness with everything else

place; that buckles buckle something. Indeed by going back to derivatives, the idea can be emphasized still more, for "buckle" comes from "*bocle*," which is the boss at the center of the ancient skin-covered, wicker-woven buckler or shield—the meeting and gathering up of the wicker at the center being the reason for the prominence.

Here is exactly the demonstration of reasonable and proper use that we need. Likening the flower bed to a jeweled buckle, it is at once apparent that the places where it may suitably be located, must be focusing points in the general design. They must be *centers;* not necessarily in the midst or middle of the general scheme, but points in the design to which the strong lines converge, or from which paths branch. In such positions a flower bed of simple form—circular or oval or conforming to the lines which approach it—is in good taste. Elsewhere it is exactly what an elaborate, jeweled buckle or pin is, when attached to a gown in some utterly and obviously useless position—a *gaucherie* of which one does not like to feel oneself capable.

The beds which carry out the design of a formal garden are of course exempt from this condemnation, having as they do, a very real place in the design. These too, however, should be of the simplest form and outline, and so arranged as to give the relief already spoken of, which comes of suitable spacing. All other flower beds fall under the ban. Let them be *taboo* to those who want them—and who, for wanting them, deserve them.

In every branch of landscape planting there is one question that ever and ever again recurs; that question is, "Is there a reason for doing this?" Not simply the personal reason of like or dislike, but a *real* reason, based on logic and good sense and utility; this is the kind that must be advanced to gain the approval of the highest standards. And this is the kind that may

be advanced for the garden form known as a "border." The name alone implies that.

A border follows something, *borders* something, ornaments something; is an attribute of something greater than itself. It is secondary to some more important thing, to a conception of a whole—in the case of a garden, secondary to some particular portion of it, taken as a whole. Possibly it follows a walk or a drive, or the side of a building, or the line of a terrace, or the margin of a lawn. It really does not matter what it follows so long as it follows something. So long as it is truly a border, be sure that it cannot go wrong; the limitations of that definite name will keep it what it ought to be.

It may be straight and narrow, like the path of virtue, or it may dawdle along in all manner of curves, according to the thing it follows. That is a matter of secondary importance that will settle itself; likewise its length is pre-determined by circumstances and sometimes, though not always, its width. A border that can be reached from both sides may of course be wider than one which must be tended from only one.

Generally speaking, it is safe to say that walks within private grounds ought always to have a border, on one side anyway, if not on both—the exigencies of the situation will decide this. The hedge, fence or lattice divisions between different parts of the grounds also invite such treatment, invariably. I should, however, hardly call the planting of perennials in the foreground of shrubbery, a border in themselves, for they are placed intermittently when thus used, and only when they and the shrubs are considered together, does a "border" result.

Any wild roadside, where Nature has been allowed to have her way undisturbed, is usually an unrivalled object lesson in planting, for both color and mass. One of the loveliest borders

I have ever seen followed the bank of a tiny brooklet, as it meandered across a meadow which lay at the foot of a gentle slope, whereon dwelt some splendid beeches. Here Nature and Art combined and from early, tender, spring until the lusty autumn, color succeeded color in the magic broidery that fringed the little stream, and divided the pleasaunce from a hay field beyond.

Only the native plants and "weeds" had found lodgment there, and it was wild in the best sense of the word. One thing or another dominated it at different times during the season, but *there was never an unbroken line of bloom* the entire length of it. Early in the summer fugitive clumps of iris, bearing a scattered dozen blossoms, broadened suddenly here and there into great masses which presented a marvel of almost solid blue. Between these masses, however, the blue gave way to long stretches of vari-colored green, where no blossoms were.

Later, marsh mallows spread their pink loveliness like rosy clouds, at intervals; daisies flourished in dazzling whiteness, and elder and the meadow sweet; then came goldenrod, and white and purple wild aster. Each fortnight or month brought its dominant note; but always there were quantities of green and plenty of white, so nothing ever clashed though each strong color held over until its successor was well established. And the whole length of this "border"—several hundred feet—was always a treat for even the weariest eyes, or head, or heart, every day, all summer.

Here then is one of the fundamental secrets—if secrets they be—of planting a border, or, speaking more broadly, of planting flowers. Let there be a succession of *dominance*, not merely a succession of bloom. Let one color, in different shades, be repeated, here in a mass, there in a few fugitive blossoms, throughout the whole. By this I do not mean that other colors are to be excluded, by any means—but everything should be

secondary to blues when blues prevail, to yellows when they lead, to scarlet, to pink, to any dominant hue.

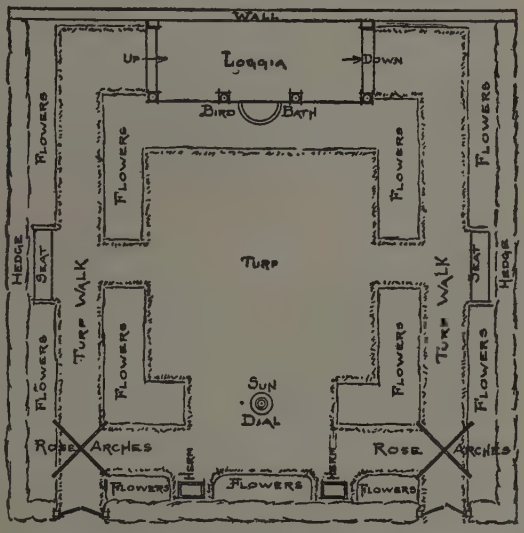
Of course this means that clumps, varying in size, of the leading varieties chosen, should be planted more than once and possibly several times in the length of a border. These, blooming simultaneously, carry the color throughout the whole; then, when they have finished blossoming, they furnish the necessary intervals of green, while their neighbors, who have been their green reinforcement, go on with the procession under the color which they have to offer. White-flowered plants of one kind and another will supply blossoms to keep each delegation company, while odds and ends, planted, one kind in a group here, another kind there, may fill in the "chinks" and give sufficient variation to stimulate interest.

In other words a multitude of colors may and should be present at all times, but in this multitude *one* should always be more in evidence than the others. It is practically the same as a color scheme in anything else: a gown, a room, a jeweled bauble, a picture—each one has its color motif. Other colors appear, complementing sometimes, contrasting or harmonizing, as the case may be, but always secondary to the leading color. If this is not so, what a disastrous failure any one of the things mentioned is sure to be!

Certain tones dominate when used in much less quantity than others. Yellow for example comes right out and shouts wherever it appears, and for this reason less plants producing yellow flowers are needed, than of any other hue. Blue, on the contrary, continually retires, consequently it must be used in profusion; this is true of purple also, only in less degree. Red stands about midway between the yellow and blue, growing less obtrusive as it grows darker. Remember, too, that blue is the color to use

when a sense of distance in small space is to be produced, or actual space exaggerated; while yellow diminishes space in rather more than inverse ratio, bringing even remote points forward and into the picture, in a sometimes startling fashion.

The kinds of flowers to plant are of course largely a matter of individual preferment. Annuals, lovely though they may be, can hardly be seriously considered in a composition that must, primarily, be permanent in order to enjoy that charm which is one of a garden's chiefest—that exquisite mellowing, like fine wine, under the lapse of time. And certainly the mixing of hardy perennials and annuals is not advisable, though there is no objection to a few seeds of some favorite among the latter being scattered in a vacancy, or a sparsely filled spot in a hardy border.

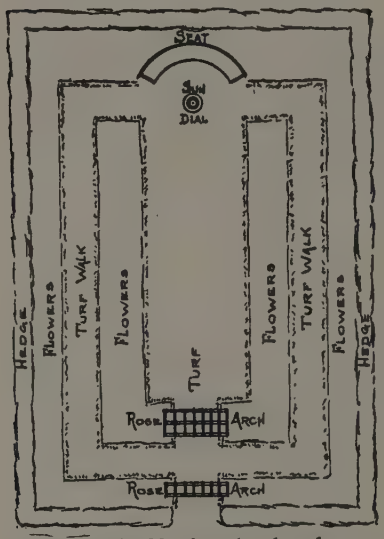


Garden suggestion for a fifty-foot square; simple lines are best whatever the area

There is always room for a little more, even in a well filled planting, and that is the chance which the quick-growing annual may take advantage of; but as a class, annuals should be kept by themselves. Certain borders can be given up to them, such as the space above the early, spring-flowering bulbs. After these have bloomed is plenty of

time to sow the seed, and neither kind of plant suffers by reason of the other's presence.

A turf margin should always divide borders from a walk, drive or path, while an edging of some one, low-growing white flower or a dwarf, ornamental grass is an advantage in all other locations except, of course, the absolutely informal and very wild.



Thirty-five by fifty feet, developed roomily by means of a vista through the entrance arches to sun-dial and seat

The natural fashion of planting certain things should be employed even though no other flowers are possible—or even though a large garden may be laid out and luxuriantly filled with all sorts of rare and beautiful things. Certain spots will admit of no other treatment, and effects are possible that surpass all others in charm through this scattering with a lavish hand, just as Nature herself scatters. Every lawn thus may and should have its quota of flowers growing in the grass, and the tiniest lawn is not too tiny to be spangled, for all time, with the flowers of two early blooming and consequently precious bulbous plants that are perfectly hardy, and that will not be killed out by ever so close mowing. And grass that is not to be cut until late and then only with a scythe—meadow growth or the semi-wild—may be planted with other later flowering things.

The naturalization is accomplished most easily, I find, by scattering the bulbs from a basket or pail, held high enough—

shoulder height—to drop them with sufficient force to send them rolling in every direction. The number of bulbs to be used runs all the way from twenty-five to a thousand or as many more as there is space for. Spill them recklesly in the smaller groups by simply turning the basket upside down; in larger quantities it may be given a toss as it is overturned, flinging them just as water would be flung along the ground.

They will roll off in all directions and some will lie in close little clumps and others will spread and journey far, and there will be bare spaces where none are. This is exactly the way they should do: plant them just where they finally lie. When two kinds are to be used together, scatter the larger ones first, then the smaller. This gives the latter a chance to roll in around the former in the same way that they would naturally work around them underground, in the process of growth.

LISTS OF PLANTS

Herbaceous perennials is the term commonly used to indicate hardy flowering plants which, given a place in the garden, do not need renewing from year to year. They do, however, need a little care and attention in the shape of digging up and dividing every three or four years. The tendency of these plants to spread at the roots causes them to crowd themselves in the course of three or four seasons; division is therefore quite necessary, if they are not to choke to death.

Herbaceous plants die to the ground every winter and rise from the roots each spring. Their stems are succulent instead of woody, like a shrub; and they are of all flowering plants the most satisfactory, because the most permanent.

HERBACEOUS PERENNIALS—BLOOM CARRIED THROUGH SUMMER

1—*Adonis Amurensis:* bird's eye; nine inches high; any soil, light and moist being preferable; does equally well in sun or part shade; foliage fernlike; flowers broad and yellow; blossoms in April.

2—*Pæonia officinalis:* peony; eighteen inches high; rich soil—it cannot be too rich nor too much enriched, for peonies are greedy; there are a myriad hybrids and special lists are issued by all dealers; the choice is a matter of color preference more than anything else; the flowers of the double-flowered forms usually last longer, on the plant or cut, than the flowers of the single varieties; blossoms in May; flowers fragrant and as showy as the finest roses—this is one of the finest flowering plants in the world.

3—*Lupinus polyphyllus:* lupine; three feet high; any garden soil, give water after sundown in very dry weather; long straight spikes of blue to white flowers; blossoms in May; plant in groups of half a dozen or as many more as desirable, or possible.

4—*Phlox decussata* (or *P. paniculata*): hardy phlox; two to five feet high according to the variety; any good garden soil; in selecting phlox it is largely a matter of seeing the plant in bloom and choosing the colors preferred, always using a quantity of white if several colors are chosen; a color progression leading from white to deep red is one of the most effective ways of using phlox, where there is space for so many plants; in such a planting all inharmonious magentas must be kept out and only the gradually deepening pinks that blend used; get early and late varieties and cut the flower heads off as soon as they have faded; this will insure

A mass of lupine, standing as erect and with manners as precise as well disciplined young soldiers

Flowers may border one side of a walk where there is no room for a complete flower garden; grass walks are the only really beautiful garden walks

blossoms from June on throughout the summer; always plant in masses, setting the plants eighteen inches apart.

5—*Delphinium elatum:* bee larkspur; three to five feet high; rich garden soil; tall slender spikes of blue flowers, varying in shade from light to dark; blossoms in June and on.

6—*Althea rosea:* hollyhock; four to six feet high; well drained soil, but give plenty of water during drought; double- and single-flowered forms are both fine; as they are easily raised from seed, planted outdoors where they are to grow, it is possible to get a mixture of colors and then save the plants that are most satisfactory, after seeing them bloom; seedlings will blossom the second season if the seed is sown before July 15; as hollyhocks are subject to a fungous disease, it is best to start new plants from seed every other year; these seem to be healthier than old and established plants, coming from roots that have been long in the garden; blossoms in July.

7—*Digitalis lanata:* wooly foxglove; two to three feet high; any soil, rather light and rich; will endure shade; flowers somewhat funnel-shaped, ranged along the very tall, strong upright stalks half their length, the lower ones opening first and the upper end of the stalk continuing to grow higher as the inflorescence ascends it; gray, yellow, purplish or whitish; blossoms in July and August; may be raised from seed; plant in masses, setting the plants from fourteen to eighteen inches apart.

8—*Clematis recta:* bush clematis; two to three feet high; ordinarily rich garden soil; white blossoms in large loose clusters, fragrant; blossoms in June and on through August.

9—*Chrysanthemum leucanthemum*, hybrid: Shasta daisy; two feet high; any soil; large white daisy flowers; blossoms from

July on through summer and fall; may be raised from seed easily.

10—*Boltonia latisquama:* false chamomile; three to five feet high; any soil; flowers similar to the small wild asters of the fields and roadsides, pink tinged with lilac; blossoms in July on to September; produced in greatest abundance; use in the back of the flower border or before the shrubbery border; may be raised from seed.

11—*Gypsophila paniculata, flora plena:* double-flowering "baby's breath;" three to three and a half feet high; any soil, in the sun; tiny white rosette-like flowers in abundance all over the plant, making it look like gauze; blossoms in August and September; not likely to come true from seed, though it may; plants are a more certain way of securing it; plant from three to five in a group.

12—*Funkia subcordata, grandiflora:* white plantain lily; two to two and a half feet high; any soil, in sun or shade; large shining, heart-shaped leaves; white lily-like flowers; blossoms in August and September; excellent for edging a border as the foliage is charming throughout the season; plant singly or in clumps; buy plants.

ANNUALS TO BE USED FOR IMMEDIATE EFFECT

1—*Delphinium ajacis*, hybrid: annual larkspur; three feet high; likes a cool and moist soil; many colors—shades of pink, blue variegated and pure white; get the mixed seeds or any preferred color; sow outdoors where the plants are to grow as soon as frost leaves the ground; will germinate in about a fortnight; thin until the plants stand about a foot apart.

2—*Aster Sinensis*, hybrid "Comet": giant-branching China or annual aster; eighteen to twenty-four inches high; heavy

loam well enriched with manure and treated to wood ashes; flowers very full and plumy, resembling the florist's chrysanthemum; blossoms in August; mixed colors; start seed indoors in late March or April for early-blooming plants and transplant the seedlings to out-doors as soon as frost has gone; for later-blooming plants sow the seed outdoors where they are to stand, not later than May; plants should be nine to twelve inches apart finally.

3—*Arctotis grandis:* African daisy; two to three feet high; ordinary soil, in sunny place; large and showy daisy-like flowers, white above, tinged with lilac beneath; blossoms in July and on to hard frost; start seed indoors or in the ground after frost is gone; will germinate in about a week; keep in masses but give the plants as much room as they seem to need.

4—*Calendula officinalis:* pot marigold; twelve inches high; any light warm soil; flowers in all shades of yellow to white; blossoms from early summer on until frosts kill the plants; mixed seeds will give a harmonious collection; start in the ground as early as possible.

5—*Iberis amara*, hybrid dwarf: annual candytuft; six inches high; any soil; small upright clusters of white flowers, fragrant; blossoms in June; sow seed outdoors early in April, thin out when the seedlings are an inch high; sow again the end of May and again late in July for succession of bloom; in this way it may be had in blossom all summer; especially suited for edging.

6—*Centaurea cyanus*, double-flowered: blue bottle, ragged sailor, bachelor's button or bluet; eighteen inches high; light soil; this may be had in blue, rose or white, but the characteristic color is blue, and pure seed therefore seems

to be the better choice; blossoms from midsummer until frost; sow in the ground as early as possible.

7—*Cleome pungens:* giant spider flower; three feet high; any soil; particularly useful among shrubbery, being rank of growth and showy; flowers rosy-crimson with a suggestion of violet; curious, clustered in heads at the top of the upright-growing stems; sow seed in the open ground as early as may be; thin so that the plants may develop, but keep in masses of from six to any desired number; very effective in long hedge-like border at some distance, also useful for screening.

8—*Papaver Rhœas*, Shirley: corn poppy, Shirley strain: two feet high; sandy loam; single flowers in white and shades of pink to deep crimson, no two alike; blossoms from midsummer on; sow thinly, very early in spring while ground is cool and moist, where they are to be; poppies will not bear transplanting; thin to six inches apart; make successive sowings during the summer for successive bloom.

9—*Phlox Drummondi, grandiflora:* large-flowering annual phlox; twelve inches high; light loamy soil; white, pink, lilac, crimson or primrose; sow in the ground as soon as possible or indoors very early and transplant; thin to about twelve inches apart; blossoms from midsummer on; keep in masses.

10—*Mathiola incana*, hybrids: stocks, "cut-and-come-again;" twelve to eighteen inches high; deep garden soil; white, pink, blue, yellow or lilac flowers crowded along the erect stalks; blossoms in July and on; sow seed indoors in March for early flowers and transplant on a cloudy day; or sow in the ground as early as possible; get seed in mixture or in any preferred color.

The length of blooming period for annuals depends almost entirely on the planting of the seed. The earlier the seeds

are started, the earlier will the flowers come, of course. But with even the very earliest possible sowing out-of-doors the blossoming period can hardly be reached before July. It usually extends to frost however, and if it does not, successive plantings will carry it on as late as one may choose.

The ten varieties here given are all that a good-sized garden should attempt to entertain. Grouped and arranged according to the methods which would be followed with hardy perennials in the same amount of space, there is no reason why these should not furnish as lovely and brave a feast for the eyes as perennials. It is simply a question of arrangement—of keeping to the standards of line and form and mass.

BULBS FOR NATURALIZING

FOR CLOSE CUT LAWN

Scilla Sibirica: Siberian squill; four inches high, lily-like leaves; any soil; plant in quantities of never less than twenty-five; set the bulbs out in early autumn, planting to a depth of twice their diameter; flowers a deep and beautiful blue, on an erect stem; blossoms in March and April; endures shade nicely.

Galanthus nivalis: common snowdrop; six inches high; ordinary soil, which should however be cool and shady, where mid-summer sun cannot reach the ground to bake the bulb; flowers white, solitary and drooping; blossoms in March and sometimes earlier, coming actually through the snow; plant in quantities of never less than twenty-five—fifty or a hundred will be better; the foot of a tree, either evergreen or deciduous, suits them admirably; for meadows, orchards and fields.

Narcissus poeticus: pheasant's eye or poets' narcissus; twelve to eighteen inches high; any soil that is thoroughly well drained; familiar white solitary flowers, fragrant; blossoms in May; plant this only where the grass is not cut until late June and then only cut with a scythe.

Ornithogalum umbellatum: star of Bethlehem; six inches high; foliage lily-like and abundant; flowers white, numerous; blossoms in May; plant in patches of ten to twenty-five or any number desired, where grass is not cut by a lawn mower.

CHAPTER XIII

Winter and the Garden

THE garden should be, always, a delightful place, "a very pleasant spot," according to the old definition of the word. Yet this is just what it so often is not, in winter—not because of the winter, but because of our way of meeting the winter. The forlorn dejection of rose bushes, trussed up in straw until they look like tombstones, is too woeful a sight for even the stoutest hearted to behold unmoved. Rhododendrons enclosed with chicken-wire, with a litter of autumn leaves covering them and filling their disreputable cages, are a distressing and ignominious transformation from the summer's royal splendor. And all the other homesick little things that are shut up in dark box or barrel prisons—how their loneliness and dreariness penetrates! It is more chill than winter wind.

All shrubs are of course hardy in their native clime; therefore the simplest way out of the question of winter protection of plants is to evade it altogether by using only native species. These will not need protecting. However, it is useless to counsel such restraint as this, I know; no one will practice it, for there are too many lovely things that grow in kindlier climes than ours and yet that may be grown here, "with winter protection," for us to resist. The next best thing therefore is to find a way of giving this protection with the least possible offense to the eye.

The thought of it should always lie back of every garden's arrangement. Every garden may be planned so that the protection of its delicate citizens need not present such difficulties as it commonly does. It is only a question of beginning right, just the same as practically all the other garden questions—beginning right and using common sense, along with a little ingenuity.

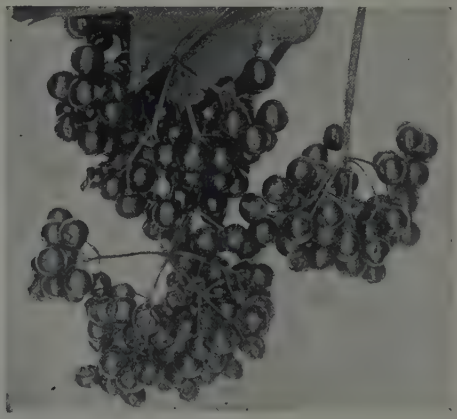
First of all it is necessary to know just what it is that constitutes the winter's danger to vegetation. Commonly we think of it as being the cold, and the snow and sleet and storms generally; but as matter of fact, these are not as grave a menace to many things as the sunshine. The rays of the sun stimulate plants to premature activity if allowed to fall directly upon them, on even what may seem a cold winter day; and this premature activity is what is so fatal. Winter protection is designed to keep warmth away from them—to keep them *in* the cold quite as much as it is to keep them *from* it—in other words, to keep them dormant during the season when they should be dormant.

The sunlight that is injurious to their tops is just as injurious to their roots too; for, although it only reaches ground above the roots, it thaws this after it has frozen, and warms it too much during the middle of the day. Then follows a chill when the sun sets and freezing begins again. So the ground around roots needs protecting as well as the top of the plants; indeed this shielding over the roots is all that many very tender things require. Some of the most disastrous winters have demonstrated this beyond question.

Nature's own protection is leaves—leaves scattered on the ground where the roots get the benefit of them. Nature groups her vegetation too, so that one plant affords defense for its

Such a treatment as this is bound to be as beautiful in winter as in summer; note the exquisite tracery of branches against the sky and snow and columns

Thunberg's barberry; especially lovely in winter with its flaming red berries



All the viburnums bear ornamental fruits, some red, some black, some purplish

The fat white berries of the snowberry are familiar to everyone; a bush grew in all grandmothers' gardens

neighbor. Large trees shelter smaller ones, and these in turn shelter lower growing shrubs—and creeping things wander in and out beneath these; and all are snug and shaded and suitably protected, without a single straw jacket, or chicken-wire cage, or barrel prison. Thus we see that it is first a matter of arrangement.

Roses are perhaps the most difficult things to deal with, in winter as well as in summer—that is, if one cares to have them attractively placed in the landscape. That they should grow in an enclosure set apart for them—a rose garden—I always insist. But even when so placed, they are ghostly and forlorn-looking when jacketed in straw. Locate the rose garden, in the first place, with the idea of its winter exposure in mind. See that this exposure is such that the roses are protected by some growth of shrubbery or evergreens—a hedge or a border—from the prevailing winds, if these are severe.

Make the beds from six to eight inches lower than the surface of the ground around them. This is a vast improvement, in summer as well as winter, over beds level with the walks, especially if the walks themselves are grassed. The view across the rose-garden is not interrupted by bare and unattractive earth patches showing around the plants, if this method is followed; and when winter approaches, the bushes may be bent down, tied each to its neighbor's base, or to a stake, and the space around and above them filled until it is a little more than level with the general surface.

Leaves of the oak are unsurpassed for this filling, but straw is perhaps easier to get, in most instances. With this a rough thatch that will help in shedding water, should be formed; and over all some branches of evergreens or of any tree may be laid, to hold it from blowing away. This work should not be done however, until there has been a freeze which will have driven the

field-mice into winter quarters, else they may take up their abode among the straw and dine on the roses' winter buds, as field-mouse living goes up under the season's advance.

Such a covering for roses is unobtrusive and inoffensive; it does not suggest the dismal side of winter, and it is quite as effective as boarded-over shelters, providing the shelter belt of shrubs or evergreens is properly placed. Both, however, must be resorted to, to make the work assuredly well done. Usually branches of hemlock may be used to clothe almost anything requiring it, in such a way that the objectionable features attending the use of straw are entirely done away with, and a resemblance to a small evergreen tree is created. Where a shrub must be bound up, I should advise always using such material.

Personally however, I should have nothing in a garden which required elaborate winter cover. Some of the tenderest things are grown in chilly northern sections, with simply a suitable arrangement of windbreaks and shelter belts. A specimen of the giant tree of California has been raised from a tiny seedling until it has reached a height of probably forty feet, on a Long Island estate, by placing it in such a position that winter's fury is tempered by hardier native trees, which do guard duty on every side. These are not close to it, but they are so placed that what one fails to intercept in the way of winter wind, the next one catches—and the protection is very complete without in the least obscuring the *Sequoia*.

A large garden should have provision for its tender plants—if its gardener insists upon growing them—in the form of pits and outside cellars. Whatever cannot be protected without calling attention to its infirmity, and thereby spreading an atmosphere of gloom over all the landscape that is within view, should be

The graveyard effect which comes of using many tender plants and trying to make them comfortable during the winter detracts greatly from the pleasure of having a garden

Christmas Roses bloom actually through the snow, and will sometimes show flowers from October to spring, without protection; this is the sort of thing worth while

The final test of a garden is its winter appearance; good work will be good all the year whether in the rich green of summer or covered with snow

March is truly farewell to winter when crocuses have been planted in abundance; this is no unusual thing for them to do

taken up and housed. Whatever may be protected by a mulch of leaves, or straw, or sod, or by branches of evergreen, or by twining herbaceous vines around or above it, so that it is not a blot on the landscape, may, of course, remain.

With this matter of protection met, through shelters that are not an offense to the eye, the question of introducing something into the garden that will be a positive feature of winter beauty, should be considered. There are shrubs innumerable that have bright berries, and others with beautifully colored bark—and all shrubbery is decorative, when well placed, even out of leaf. Just the lacy mass of its bare branches against the snow is charming, or their warm color against the browns of vegetation generally, or against the deep tones of evergreens, when these form the background.

Masses of cornel give ruddy warmth to the corner where they live; the black alder holds its bright red berries practically all winter; rugosa roses bear hips as large as French chestnuts that are a lovely, translucent scarlet-orange; the purple barberry is purple in branch, leaf and berry; the viburnums have fruits that are scarlet, blue-black, and pink-and-dull-blue; while the old-fashioned snowberry and its twin, the Indian currant, are familiar to everyone, with the fat white berries of the first, bunched in odd sizes, offering a most attractive contrast to the coral of the latter. But more decorative than all other fruits, perhaps, are the berries of the corky euonymus, and its relatives of the spindle tree family. These are contained in a capsule, which bursts as the fruit ripens, rolling back to show the brighter colored, or differently colored seeds within. The capsule is usually a bright orange-scarlet; the seed itself is black in one variety, a deeper, brighter red than the capsule in some others, and almost white in another.

So it is not difficult to plan an all-the-year-round garden when planning, and cheat the winter. And in a climate where so many months are dull and colorless, if not actually wintry, this is something which ought never to be overlooked. It is, in fact, hardly too much to say that winter should have as much consideration in the arrangement of the garden as summer.

Where frosts are likely to come late in the spring or early in the fall, a windbreak or shelter which is so dense that it does not allow the passage of air at all, tends to encourage them by keeping the air still within the space which it encloses. Still air is, of course, favorable to frost. For this reason privet is better, in some situations, than a denser hedge which excludes all wind. It is a matter of tempering the wind, rather than shutting it out altogether. Privet, as I have already said, holds its leaves nearly all winter and grows so twiggy, through repeated prunings, that it forms an impenetrable barrier to animal life, and likewise to snow and biting winds.

An evergreen winter garden, enclosed with a hedge so high that winter is shut out, is something which every all-the-year-round home should boast, for the encouragement which it will give to outdoor life. This may be somewhat apart from the subject under consideration, but I feel that it should be mentioned, because we are dealing with winter in the garden. Where there is space to set apart such a spot, even though it is very tiny, it ought to be done. Surround the evergreen shelter hedge—which need not be trimmed, by the way, unless one prefers, but may grow unrestrained—on the outer side with a shelter planting of deciduous native trees, mingled with evergreens. Carry the "walls" of the garden north and south, so that all the sun's warmth may pour down unobstructed into it; furnish it with some weatherproof rustic or white-painted, wood seats, or

benches, and a table—then get into the habit of loitering there an hour daily, during the sunniest time of day.

All plants have a winter beauty quite as distinctly their own as the flowers which they bear in summer. Observation and study of them in winter alone will teach it—for it is brought out or obscured very often by the plant's situation and surroundings. In developing a garden, aim to find out what particular quality each plant depends on for this winter charm. Learn to look at winter landscapes as having something positive to offer—and to look at plants in winter *un*dress as likewise having a positive beauty, and not the merely negative, dead-and-gone-to-seed aspect which long habit has made us associate with them. Then, having found this beauty, group and arrange the garden to bring it out to its best advantage.

Generally speaking, a group that is pleasing in summer will not be bad in winter, though this may not follow if the work is highly artificial. The final test of garden and gardener, is the test of winter. Truly good work will be good in winter, with no unsightly winter armament guarding delicate interlopers, to disfigure the picture. For, when all is said and done, that is the last word in gardening, whether it is realistic or formal; it builds a picture. Whether it is a picture that lies under a mantle of snow, or under the staid brown of autumn, or under the radiant green of young spring, should not matter; the picture quality must be there. If it is, no season can take it away.

List of Plants

SHRUBS FOR BRILLIANT WINTER EFFECT

1—*Rosa lucida* (or *R. humilis, lucida*): wild rose; six feet high; showy clusters of crimson fruits on bright red stems, con-

spicuous from September on through February; single, bright pink flowers in June and July.

2—*Viburnum cassinoides:* witherod or Appalachian tea; six to eight feet high; upright growing, with brownish gray branches; bears dense clusters of berries that are pink, changing to deep blue, all gradations appearing at once, in one cluster; small white flowers in dense heads, in June and July.

3—*Cornus stolonifera:* red osier; eight feet high; spreading bush with bright crimson winter bark; bears abundantly white berries slightly tinged with blue; small white flowers in dense showy heads, in June.

4—*Berberis vulgaris:* common barberry; eight to ten feet high; pendulous, sweeping branches, weighted along their length by clusters of vivid scarlet berries, persisting all winter; fragrant yellow flowers in early spring; one of the most attractive of the berry-bearing shrubs.

5—*Viburnum dentatum:* arrowwood; fifteen feet high; dense-growing, vigorous upright shrub with gray-stemmed branches, bending under a load of brilliant blue berries that last until hard freezing weather; quantities of tiny, faintly-sweet flowers, in close heads, in May and June.

6—*Cornus candidissima:* panicled cornel; fifteen feet high; upright dense shrub with gray smooth branches; warm-white berries on red stems lasting through October; white flowers in profuse clusters in May and June.

In grouping these in a border planting, the rose may be used for facing down before the others, its given height of six feet being its height at the middle, not at the outer edges. Its branches spread and arch enough to come well down to the ground. The barberry is also suitable for the same location.

Climbing roses are always possible along the walks of the vegetable garden, carried on arches of wire or of wood lattice

The Brussels sprouts are quite glorified in their trim turf-edged bed, and everywhere the homely things which are good to eat display unsuspected charms when the vegetable garden is well designed

CHAPTER XIV

The Vegetable Garden Beautiful

THE vegetable garden is very badly treated. Our attitude toward it is unfortunate, both for ourselves and for it—and there is no excuse for it. There is positively no reason for hiding it in out-of-the-way corners, or squeezing it into grudgingly yielded spaces, if really worthy care and thought are given it. If it began with a plan just as painstakingly worked out as that for a flower garden or a landscape we would have no reason for hiding it.

Vegetable gardens are not usually attractive from an esthetic point of view, to be sure—but small wonder when we consider how shabbily these most useful of all gardens have been dealt with, for time out of mind. They have been given no chance to be beautiful, because everyone is thoroughly convinced that beauty and utility are hopelessly incompatible—in gardening anyway. Daily we hear more and more about beauty and utility being sister and brother—some are even putting forth the claim that they are twins—still no one ever seems to think of testing the truth of the assertion, outdoors, on and in the ground.

Yet, if it is true at all, this is just as true outdoors as it is in; with plants and fruits as with furniture and fittings. In the old, old days, in the old world when gardening was carried on behind

protective walls of massive stone, and only the monastery gardens escaped pillage and destruction under the incessant warfare of the times, flower gardens, as such, were unknown. Gardens were a vital necessity and not an ornamental luxury in that stern age. They were stocked with those plants which furnished either food or medicine, with no room for aught else. But many of the latter were the flowering plants which are the isolated and pampered aristocrats of to-day's gardens; so after all the old-time utility did not mean the grim unloveliness which modern garden methods have led us to associate with the word.

It is just a return to this ancient sincerity and simplicity that I would urge, in the development of our present-day gardening. This by no means implies approval of a potato patch adjacent to the entrance drive or cabbage under the living-room windows. It only implies a plea for a sane restoration of useful vegetation—and by useful I mean, in this instance, of practical, material use—to its rightful place and dignity.

We are called a nation of suburban dwellers, yet there are thousands and thousands of suburban places in the land where a vegetable garden is never dreamed of, though much time is spent—and money too—in the care of flowers and lawns, and in "polite gardening." Students of economics have recently pointed out that the enormous waste which this system entails, is unquestionably one of the causes of the high cost of living, under which American shoulders are groaning. This seems more and more reasonable, the more it is considered.

Eight plots, 50 x 100 feet, are, roughly speaking, equal to one acre of land. Reserving one-third of such a typical plot for the house, and one-third for lawn and as a concession to neighborhood conventionalities, there remains one-third for garden. Multiplied by eight this amounts to one-third of an acre; and one-third

An entrance to a vegetable garden which is singularly appropriate and extremely simple; a grape vine festoons it, and flowers border the path

Even without a design there is real beauty in neat borders for the walks and well trimmed hedge boundaries

Within this old box-bordered area vegetables and flowers dwell in friendly intimacy; the splendid stone wall closes the place in from the street, while the white fence divides garden and lawn

of an acre, under the intensive farming system, will produce all the vegetables, with the exception of potatoes, that a dozen people can eat in a year. We may consider, therefore, that for every eight suburban places, the vegetable food of twelve persons is sacrificed; all because of an artificial attitude which looks shamefacedly at a vegetable garden as something inelegant and vulgar. Surely we are able to put all this affectation away, once it is realized, without great effort. Let us turn our backs on these old ideas and get at the problem of beautifying the Vegetable Garden, taking as much pains with it as we would with a Rose Garden, or a Garden of Old-time Perennials.

To this end we must see first what its demands are—what the culture of vegetables absolutely requires—regardless of where they are planted, or what they are. Undisputed possession of well and constantly tilled soil is their one imperative need. That is, they must not be crowded by weeds, by other plants, nor by each other—though all vegetables really may be planted much closer together than the old-fashioned farmer commonly puts them.

The chief obstacle therefore in the way of securing a pleasing effect where vegetables are grown, is the amount of brown earth necessarily exposed. In a flower garden, where masses are thrown together luxuriantly and individual specimens are not desired, the earth is covered; but this sort of treatment simply cannot be resorted to in raising vegetables. Neither is a ground cover, no matter how low growing it may be, permissible, for any plant other than the vegetable, will steal moisture and food which should be its individual and undivided own.

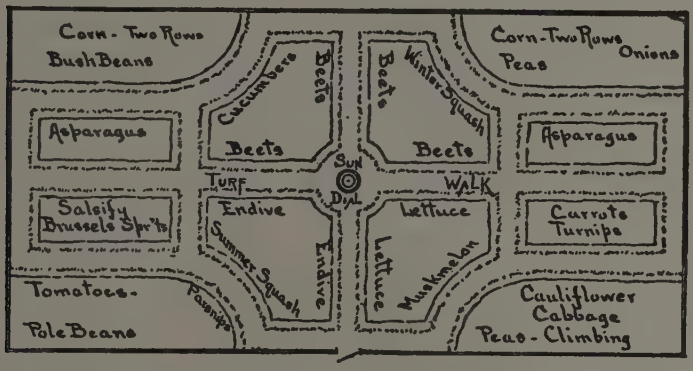
We have here nothing worse, however, than the identical problem which confronts the rose grower, for roses are quite as particular about their residence, and will brook no intrusion.

Yet the rose enthusiast is not balked by it. For want of the best solution, though, I am bound to say that the beauty of most rose gardens is very seriously impaired; for even with roses blooming all around, the eye instinctively longs for something more refreshing and pleasing than bare earth, beneath them. The one satisfactory solution for the rose garden is sunken beds with grass walks dividing them; and this is likewise the vegetable garden's redemption—this, and that beautiful order which is the first law of all things. A vegetable garden, to develop the highest beauty, must be perfect in its formality and balanced symmetry.

Beds lowered six inches below the general level, with turf walks four feet wide, outlined with low flower borders for main divisions; and walks of a foot less width, similarly edged or not, for subdivisions, will produce an effect that no one who has not tried it, nor seen it tried, can conceive possible with such respected but socially uncultivated plants as beets, lettuce, radishes, salsify and the like. Plan such a garden on paper as carefully as any landscape, centering it on some division of the house if possible. If this is not practical let a walk leading to it be its axis, and plan from this.

Make its form whatever the space permits; it will not matter whether it is a square or a rectangle, if it is planned on an axis running either way. Do not over-elaborate the design nor introduce intricate forms in the beds—this is bad taste, whether flowers or vegetables are to fill them—and be careful to arrange so that the low-growing vegetables shall occupy the central positions, with the taller kinds at or near the garden boundaries. Perfect orderliness must guide the planting of every seed sown, and immaculate neatness must reign in the garden at planting and perpetually thereafter as it grows.

The plan given is for an area of 50 x 100 feet. The same amount of care that would keep a lawn this size, with flowers and shrubbery planted on it, in perfect order, will take care of such a garden as it shows. The vegetables for it would of course



Suggestion for the development of a vegetable garden enclosed with a lattice or fence. The paths are all of turf

be selected according to the gardener's taste, and from it all that from four to six people could eat, with the exception of potatoes, would be harvested.

While all of the above applies especially to gardening within a very limited space, the little effort required to design and lay out a vegetable garden on lines that shall please the eye and satisfy the ever-constant craving for beauty and charm, is well expended no matter how wide the domain. Indeed, I am not sure but the large place owes it to itself and to the world at large, to take especial pains in this direction. For it is to the large place, where money expenditure does not have to be reckoned so carefully, that all places look for an example and for inspiration.

A vegetable garden once laid down on good lines, with garden

ornaments exposed here and there, at suitable spots—a dial with a rose clambering around its base, perhaps, or a fountain, or a bird pool to encourage the presence of the bird allies, so that they may be early and often on hand to devour the pernicious worm—may be as permanent as any formal flower garden. Rotation of crops is perfectly feasible within its limits, as well as the successive planting which prolongs the enjoyment of its products—and if it is enclosed, as I should strongly advise its being, fruit trees trained in the European fashion upon its walls, add just so much more to its advantages, as well as to its very real beauty.

LIST OF PLANTS

EDGING PLANTS

Annuals will be better for edging the beds and the walks in the vegetable garden where the work is done by horse power. Perennials are likely to be trampled badly and the lines along which they are planted destroyed when plowing is done. Annuals, not being sown until after this is finished, are not in the way and consequently do not suffer. Perennials may be used where the wheel hoe or the spade and rake do all the work.

PERENNIALS

1—*Armeria maritima, splendens:* sea pink or thrift; flower stems nine inches high; any soil; evergreen tufts of foliage on the ground; small pink flowers in dense heads, lifted above the leaves on wiry stems; blossoms continuously from early spring on; may be raised from seed.

2—*Iberis sempervirens:* evergreen candytuft; twelve inches high; any soil; may be raised from seed easily, sown where it is to grow, either in spring or early in the fall.

ANNUALS

1—*Alyssum maritimum*, "Little Gem": mad-wort or sweet alyssum; four inches high; any soil; sheets of white flowers throughout the summer, fragrant; sow early where it is to grow.

2—*Ageratum*, "Princess Pauline": floss flower; eight inches high; any soil; compact growth, bright blue flowers; start indoors and transplant or sow outside in May; blossoms from early summer on.

An edging of turf eight to ten inches wide should always inclose the walks unless they are entirely of turf, whether a flower edging is used for the beds also or not. Back of this turf and at an even distance from it set the edging plants or sow the seed for them, in a carefully drawn furrow. Then draw an exact line twelve inches back of this furrow or the line of the plants, and bring the vegetables, in straight and carefully laid out rows, just to this. If a taller plant is desired along the walk it will be necessary to allow greater space for it on the ground. A border of sweet Williams, for instance, will require eighteen inches in width between turf edge and vegetable line; a border of day lilies will need twenty-four inches or more, and so on.

CHAPTER XV

Garden Structures

ALL the great gardens of the world have countless loitering places—some indeed fairly palatial in themselves, though only garden incidents—and all little gardens may usually, and certainly should if possible, have at least one. I know of no better and surer emancipation from the artificial than that which comes from much lingering in a garden.

But it is out of doors and *away* from doors, out in the garden that we must go, if we would company with the sweet garden spirits. They that dwell unseen among blossoms and leaf and branch and ride swift and far on the free winds, are not to be enticed onto porches—nor yet even up to a terrace. Only quite away from the rigid walls of man's daily habitation will They of gardens linger—away, and truly in the garden.

How many, many gardens are wasted! How many gardens are planned and planted and carefully tended—but never *lived in* by anyone. Indeed the commoner practice with gardens ranks with the old fashion of "using" the best room. Carefully shut up and darkened, with all its treasures in immaculate order, it may have been a source of complacent satisfaction; but surely it was never anything else.

A garden house, whatever name we call it—some call it a gazebo, some a casino, still others a belvedere, a loggia, a bower,

A lovely conception that is just short of perfection because of the prominence of the overhead members of the arbor; detached from the house an arbor cannot be too simple overhead; this is architectural

Here there is absolutely nothing left to be desired; a retreat at a distance from the dwelling should afford actual protection from the elements or else be just an arbor

Such a seat fulfils the purpose of a semicircular seat but is simpler in construction; the overhead work is just right

just a plain summer house, or even a pergola or an arbor, though these latter two apply only to roofless structures—a garden house provides that definite livableness to the garden, which is needed to encourage living in it. Assuring protection from the elements, it invites repose; yet, being open and vine-draped and sylvan, it loses nothing of outdoor redolence in doing so. It remains still a temple of Pan.

If such a retreat is never to be used however, it ought never to be built. For of all the dismal things anywhere in the world, the deserted, dejected, down-at-the-heels garden house is surely the most dismal! It wears the look and the air that a *passé* beauty might wear, in the gray dawn, the morning after a ball. One shivers at the stamp of desolation so emphasized by contrast with what once was.

A garden house is a reasonable project whenever it is able, and only when it is able, to fulfil the purpose for which it is built. This purpose is to provide an outdoor sitting-room sufficiently secluded to invite occupation and to insure its intimate enjoyment; a room apart from, and far enough distant from, the dwelling to afford a complete change and relaxation.

Obviously the circumstances of every garden are the factors which will determine independently the opportunity for a summer house in that particular garden. Most places afford a situation that fits, or may be made to fit, the requirements, but there are many of course that do not. Where the limitations do exclude such a structure, give it up absolutely. It is worse than useless when it is crowded in; it is absurd.

This is a simple matter, however—this deciding whether or no it is a reasonable, and therefore a permissible, member within the limits of a certain garden. But the choice of the sort of a structure to build does not seem to be so simple, if the

mistakes not infrequently made by those who ought to know better, are anything to judge by. It is a lamentable fact that there is an amazing lack of comprehension of true fitness displayed in many pretentious gardens. And until it is the rule for us to think first and think intelligently, I am afraid that such errors will go on being made.

The pergola madness results from one of them. Who the man was that perpetrated it in the first place, no one knows; but over the length and breadth of the land it has spread—and the end is not yet. Jacobean mansions, English half-timbered cottages, Swiss chalets, French chateaus, and our own comfortable Colonial manor houses alike display, with astounding impartiality, a riot of (alleged) Italian pergolas, at front or back or sides, or maybe all four and again in the garden; to say nothing of the nondescript dwellings of the nondescript class which have added or been added to, a pergola.

Nothing in architecture has caught the popular fancy to such a degree since the deluge of "Queen Anne" style which engulfed the builders of a generation ago. And just as the good and charming Queen Anne domestic architecture became sponsor in those days for dreadful monstrosities, little and big, so the lovely pergola of Italy is to-day responsible for endless absurdities.

Perhaps if the foreign word were dropped and the literal translation substituted, it would be possible to consider these structures in a more rational manner. "Pergola" is literally "arbor," "pergula," from which it is derived, being "vine arbor." Here surely we gain a better sense of relation—and proportion. The English equivalent, being honest, is more conducive to honesty—for who would build an "arbor" in place of a roof, over a porch? Yet many have put "pergolas" there; and as a crowning absurdity we hear therefore of the "pergola roof."

Pergolas have no roof other than the leafiness of the vines that overrun them. And even the cross-pieces that uphold these vines—those members which are familiar to us as rather heavy rafters, sometimes elaborately shaped at their overhanging ends—are more or less temporary and fragile things.

Nowhere probably is there a truer example of the pergola in its honest simplicity, than in the gardens of the old Capuchin monastery at Amalfi. Along the mountain side these arbors ranged, tier after tier, in the old monkish days—true vine arbors and nothing else. Approaching the monastery buildings the upright supports became architectural, and a part of the retaining wall which runs along the steepest part of the slope; but the long, thin saplings forming the overhead framework remained the same.

Thus the sense of permanence and stability prevails in the upright work, while overhead repairs may easily be made. The stone columns are hollowed transversely at the top, to receive the saplings, which are simply laid across from side to side. Now there is a wretched little railing running from column to column, to keep the hotel's guests from tumbling off and down the mountain side, but this is a latter-day "improvement." The monks grew flowers in this space. It is worth noting, by the way, that the vines are, in some places, planted inside the columns.

So the good old monks built just as good sense would prompt anyone to build. Their "pergolas" are simply permanent, convenient, and easily repaired grape arbors carried along the hillside—architectural only where they approach the dwelling. Elsewhere they are of the crudest, though at the same time most picturesque, construction, easily managed and made of the most primitive materials. With their outspread vines they

furnished a grateful shade to the keepers of the vineyard, who must labor there under the hot Italian sun; and they afforded the best possible means of training the vines, for best results.

When the pergola mania seizes a victim, let him stop long enough to ask himself two questions. The first one is: If it were an arbor that thus possessed my mind, would I wish to build it? The second is: Shall it be—or is it possible for it to be—an immediate attribute of the house?

If the first question meet with an affirmative answer and the second a negative, then an architectural treatment will not be the best and most appropriate. Remember that the Capuchins' arbors are architectural only as they lead off from the pile of the buildings. It is not, however, that architectural treatment should be applied only to a structure that is an attribute of the house—that is by no means so. But architectural treatment of an *arbor*—of a roofless, simple, vine support—is appropriate only when this is the case.

It is not, either, that we should imitate the Capuchins; but they have done what they have done the very best that may be. When the best has been done, when simple, straightforward reasons have been the guide and a beautiful result has been attained, anything that goes against the principle thus established will be lacking in merit and lacking in artistic effect.

So much for the pergola—for the arbor, to think of it as we should. Words—and we—are such deceivers; we should be careful how we use them.

A loggia is architectural, indeed is fairly monumental—yet a loggia may be built with perfect propriety in any part of a garden. For a loggia is primarily an outdoor, roofed, sitting-room, usually enclosed on one long side, and open on the other and on the ends. Often, though not necessarily, it is a part of

Nowhere is there as good an example of the true pergola as the Capuchin Monastery at Amalfi shows; remote from the buildings it is of most primitive construction

Reproduced, by permission, from "Architecture"

Adjacent to the buildings, architectural columns take the place of the sapling supports but overhead the vines rest on precisely the same support in one place as in another

Reproduced, by permission, from "Architecture"

A general view of the Amalfi Monastery vineyard, which is the occasion of the extensive pergolas; here the transition from the architectural to the primitive is seen distinctly, as well as the succession of arbors rising on the terraced hillside

the house, and is indeed practically a porch that is not used for entrance. In many of the old Italian palaces it is on the second floor; but it may furnish a garden boundary, and it is placed with delightful effect opposite the dwelling sometimes, across a formal garden. Any favorite spot in the grounds indeed may be chosen for its site. Being an architectural structure it should of course conform to the style of the buildings on a place, and be as elaborate and pretentious, or as simple, as these.

A belvedere is a garden building occupying a lofty position, built there especially to command a fine view. Only a structure so located is entitled to the name. A gazebo is also high up, occupying a position chosen for outlook; but a gazebo is usually part of a garden wall, partaking of the character of a watch tower. It is intended more as a place from which to look over and outside the walls, rather than to command a broad and stately sweep of landscape.

These therefore require certain surroundings and presuppose certain elements in the garden where they are built. But a casino or a bower—I must confess a liking for the latter old, deep-rooted Anglo-Saxon word—is just a summer pleasure house. It alone therefore gives us something definitely suited to all sorts and conditions of gardens.

Constructed of any building materials that may be preferred, it may follow the lines of the house or not. The only restraint put upon its designer is the restraint of good taste—and good taste only means after all, appropriateness. Perhaps the meaning of this may be clearer if it is explained that a little round or octagonal structure, built of birch trunks and branches, with a shingled roof stained to match the house, set out on a trim lawn at a distance of thirty feet possibly but not more than that from the house, with never a trace of vines nor shrubs nor trees around

it, is as complete an example of bad taste and inappropriateness as I believe it would be possible to find. Yet this sort of thing is not uncommon—with perhaps some monstrous unusable and immovable chairs, made of the same raw forest product, standing grimly at either side.

"Rustic work" is only suitable to the most primitive surroundings. It is as out of place on a smooth-shaven lawn as a shooting-jacket would be at a formal dinner. Such a building belongs in the woods, if it belongs anywhere—I am not sure that it does belong anywhere—and its roof should be of split boughs or sheets of bark, never of tiles or shingles.

A simple building, well proportioned, with a deep shadowing cornice and a roof of not too steep a pitch, is always satisfactory anywhere. If this roof, made with a steeper pitch, is of rush or straw thatch, the charm of the structure is assured regardless. I am tempted to say, of design and proportion. Of course this is not altogether so; but clematis and honeysuckle and akebia will soon hide defects of design, leaving the picturesque roof alone in view. Such a structure takes its place in the midst of greenery as if it, too, had grown from the earth. It suits any kind of house and grounds, great or small, and is preëminently the sort of thing to use with the free lines of landscape or absolutely informal gardening.

Luxuriant planting should back up any garden house, on one side or another. It may hide it indeed from everywhere, yet leave vistas from it to any charming bits of planting, natural or artificial. Or the structure may be a part of the garden design and as such occupy a position of comparative prominence; but even here it should be planted in and well clothed with verdure as well as backed and framed by it.

CHAPTER XVI

Garden Furniture and Accessories

THE garden which is too small to permit the building of a bower within its boundaries may yet have a garden seat, or several resting places. No garden is too tiny for this. Let us therefore examine the possibilities of garden benches first of all.

They must be comfortable to sit on, primarily, and comfortably placed. This does not mean always in shade however, for there are many days when to sit in the sun is greater delight. But they should be located where the most charming bits are most easily seen and enjoyed by their occupants. Make a point too, of having something fragrant growing close by—mint under foot or some sweet herb, or a sweetbriar rose near at hand—something that smells sweet perpetually. Fragrance is one of the garden's essentials, everywhere.

The classic exedra is of all forms the best for a garden seat. This is curving its entire length, usually indeed a semicircle, thus bringing its occupants together equally or nearly so. Executed in stone or marble it had an important place in the gardens of antiquity, and executed in stone, marble, terra-cotta or wood it is worthy an equally important place in gardens to-day. Its size may vary according to existing circumstances. Usually it has a back, sometimes high but not always. Thus it

is not only a comfortable seat for a group, in that it brings them together, but a restful and comfortable seat for the individual.

It is not at all likely that the charming, old, curved, white-painted seats which some old gardens harbor, were consciously modeled on this stone conversation bench of the Greeks, but the same need furnished the idea for their form. The same gregarious instinct prompted their making. And such a seat offers naturally the suggestion and the place for a round garden table, with all the sociable delights which it brings.

The two together need take up very little room. A seat that is a complete semicircle, large enough to seat six persons easily, with its round table placed on the center from which its curve is drawn, will only require eleven by seven feet. This style of seat may be cut in half, if only half the size is desired, or a semicircle constructed with a shorter radius. A radius of less than thirty inches, however, is not practicable, as it does not allow sufficient space in front of the sitters. Usually a radius of four feet is the best for a bench to seat any number up to six. This gives a pleasing and sufficient curve to even a very short seat, cut off at the quarter circle or less and accommodating only two or three.

The radius for any desired size of bench is very easily determined. Allow two feet along the inner circumference of the seat for each person to be accommodated. This will be the measure of half the circumference of a circle. One-third of this will therefore be the radius required to swing that circle; for the diameter is one-third the circumference and the radius one-half the diameter, or one-sixth of the circumference.

For example, the number of persons to be seated is six: two feet to a person makes twelve feet, which must be the length of the inner edge of the semicircle, which is half of the circumference.

A pool well placed to mirror light and yet reflect the trees which stand beside it

This seat beside a path commands a lovely prospect and itself is a charming bit, with the deep green of the pine branches reaching above it and casting their shadows upon it

Here the overhead construction is unobtrusive although it is more elaborate than the true arbor

This charming basin is filled with water by hand; it insures a constant round of bird visitors

One-third of this, or four feet, is the radius of the inner edge; this is increased sixteen or eighteen inches according to the width of seat desired, to give the line of the outer edge or back of the bench. The table may be any size up to four feet across, and allow ample room between it and the bench. It should always stand on the center, and the ends of the bench should always be cut on a line drawn from the center.

Using this same circle and cutting it down so that only four people may occupy the seat, it is possible to use only seven by seven feet, with the table. Without the table a seat this size could be put anywhere that any ordinary straight seat would go.

Next to seats—which simply must not be omitted from any garden—I rank sun-dials. These too ought never to be omitted, and certainly of all garden furnishings they are, in one way, the most important. It is not because they are of less consequence than the garden seat but because they are less likely to keep us out-of doors and in the garden that I have spoken of the latter first.

There is a mystery of eternity in a sun-dial, and I will venture to say that no one who has dipped ever so little into dial lore, or thought of dials at all, has missed the realization of it. To me, however, it is not so much in the quaint old mottoes that adorn the dial face and admonish the observer, nor in all the beautiful lore that surrounds dials, as it is in the dial's constant intimacy and familiarity with the swinging spheres in space. It brings an enfolding sense of the oneness of all things in the great march through eternity.

For this reason perhaps I have no patience with the gloomy dial mottoes, with the lugubrious warnings that thunder themselves at unsuspecting persons who come to this, which has been so beautifully called the "garden altar," to mark the shadows

passing. They belong to the dark ages when men governed themselves through their fears, when virtue lay in gloom, and when the fairest hours must always have some dismal thought to temper them, lest anyone by some mischance should be completely filled with joy.

How much better and finer is the thought in this old Latin motto: "Let the mind know no twilight." Or in this other, which furnishes a motto for right living, "I count the bright hours only." The same idea is in the charming couplet:

"The hours unless the hours are bright it is not mine to mark;
I am the prophet of the light, dumb when the sun is dark."

And how happy and sunny is "Amidst ye floweres I tell ye houres." What a sense of duty well and contentedly performed.

The location of a dial should be worthy of it as an "altar." Indeed the garden may well develop around it, or *to* it, as its crowning achievement. A delightful position for it is on the center of a curving seat, in place of the table suggested. This means that the seat will be in the sun, for of course the dial must be. But trees back of the seat may give it partial shelter, and a combination of a seat with the dial ought always to be made. Put another seat somewhere else, for shade; a seat by a sun-dial, to use in the moonlight, is worth sacrificing shade and a good many other things, to have.

Its setting is a thing to be determined by circumstances in a measure, though I do not feel that any really crude device for upholding it can ever be very effective. A thick tree trunk cut at the convenient height may not be unattractive when clothed with ivy, but a huge stone or boulder seems far better, if a natural pedestal is desired. The stone has a sort of Druid dignity which the rough wood lacks. It ought never to be low

The simplest things are often very decorative —these rudely constructed rough stone steps with an Italian oil-jar beside them, for instance

Among the tangle of roses the whiteness of marble shows in exquisite relief, and this form of statue never grows tiresome

Two simple white wooden seats that invite to idling; out-of-doors ought to be liberally furnished with such as these

Following the same lines a single seat of the semicircular type occupies another focussing point in the same garden

as some that I have seen however, certainly never lower than the height of a tea table.

The simpler the pedestal the better, ordinarily. A straight turned column with plinth base and simple square cap, a square and unornamented shaft of concrete drawn in at the top ever so little, or a quadrangular column tapering towards the base, patterned after the ancient hermae of the Greeks, are each of them good. A low-growing vine may be planted at the foot of the pedestal, but nothing should ever be allowed to grow up and around it and obscure it completely. Neither should anything ever grow about its base thickly enough to prevent close approach to it. Fragrance here is most fitting, however—dense mats of thyme, mint or pennyroyal, or a sweetbriar, kept within bounds.

A little bit of water somewhere for the birds is my third essential, for little gardens or for big. Where a pool in the ground is out of the question, some kind of small bathing pool for them is still possible. A large boulder, hollowed into a basin deeper at one end than at the other—for tiny birds as well as for the bigger fellows—is the simplest and in some places the most easily provided; and a pailful of water poured into it daily, though a primitive method of supplying it, is quite as good as any other. This daily agitation keeps out the "wrigglers" too, and insures freedom from mosquitoes, as far as their breeding there is concerned.

An earth pool which may be stocked with goldfish and subaquatics does not require elaborate construction, for it may be filled with the lawn hose if it lowers during dry seasons. The plants and the sunlight will keep it as sweet and as fresh as an aquarium indoors.

Fountains are a delight in hot weather, but, unless of very

excellent design, they are dismal things in winter, minus the water. So unless they can be very well done, they are better omitted altogether.

Bees are not furniture exactly, but they belong in every garden where flowers grow. Fruits will be scarce on many a bush without bee visits, and vegetables too, within the kitchen garden. They are a little trouble at swarming time perhaps, but well worth it in the practical advantage of having them, to say nothing of the delight they are to watch and study and ponder over.

The possibilities of the lattice are innumerable and cannot more than be mentioned in a general way. For divisions in the garden, for blotting out disfiguring objects where there is not space to plant them out, and for insuring the privacy of tiny gardens, there is nothing equal to a lattice. High board fences that are an eyesore take on real beauty when stained a dark rich green or brown, and topped by a white painted lattice, half their height or thereabouts. And lattices fixed against a building are in themselves most decorative, as I have already pointed out in a previous chapter.

Finally we come to statuary, and here is one thing to be very careful about. A statue has no excuse for being unless it is excellent in conception—unless it carries some big meaning. Abominations in the shape of deer and hounds and other "realistic" animals, which found their way somehow into some grounds awhile back, are not likely to break into any garden of to-day, I trust. But meaningless groups are almost as bad as these were.

We do seem to be somewhat at a disadvantage in the matter of subjects, to be sure, when we compare our resources with the rich mythology of the ancients, inspiring as it did so many

Here is overhead construction that is just what it should be—and a seat and table of stone that will endure even as the garden furniture of the Old World has endured

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Many trees lend themselves to this method of training; pleached alleys or arbors require some time, but there is absolutely nothing to compare with them, once they are established

beautiful pieces of sculpture. But after all, is this so? We have not their many pagan gods to model, but what about the eternal verities for which they stood? These, each and every race must always have, and must always go on representing, each in their own way.

Keep to these in garden images rather than admit the feebly pictorial. Even a mediocre faun, representing the spirit of woods and dells and all out-of-doors, is better than a most excellently executed girl tying her sandal, or boy with a sliver in his foot. A statue is a permanent thing and should represent a truth, not an incident. Make this the test, outdoors at least: I find it a very satisfactory one for all places.

CHAPTER XVII

Planting and General Care

THE best time of year for general planting, according to my experience, is autumn. Everyone may not have found it so—many have not, I know—but that does not alter the fact that I have. And it seems to me perfectly logical that it should be the best time, except for certain special things.

Plants stir in the spring long before they wake, precisely like a sleeper in a snug bed, conscious of a summons yet not quite able to grasp its meaning. Through all their tender roots the life force thrills first; then, little by little, it mounts until we one day see the signs and say the "sap is running—soon the buds will burst"—and spring is here!

This waking-up time is a time of abounding vigor and, if it were not for things outside the plant itself, the period just preceding it would unquestionably be an ideal time for moving a plant into new quarters. But spring weather conditions are the most uncertain of uncertainties—and herein the danger lies.

Lifting a plant from the place where it has been growing deprives it of countless numbers of its fine feeding roots; therefore it shuts off a portion of its food supply. New roots form rapidly to take the place of those lost, when the ground is not waterlogged, and when it keeps at an even temperature. In the spring, however, the ground is more than likely to be water-

logged, and it cannot keep anything like an even temperature, with a blizzard one day, a thunder storm the next, and sun only half shining when it does shine—or else blazing forth like midsummer for a few hours.

So everything is unfavorable for a month or so, if early planting is made, to a plant's establishing itself—that is, to its making new roots to take hold upon its new home. And if planting is delayed until late spring, sudden scorching heat may come and burn things up before the new roots have reached sufficient development to supply the needs of the fast-growing leaves.

In the autumn, however, things are getting ready to go to sleep anyway. Activity is quieting down. The next year's buds are formed and tucked away, under the leaf stalks perhaps, or wherever they belong, and the season's growth is ripening from green succulence into tough wood. And the ground is warm from the summer—warm away down deep, and mellow. This is just the condition most favorable to the growth of new roots, and plants transplanted at this season are in a state to give all their energies to root growth. There is no call upon them from above

The best time therefore to transplant is about a month before they are actually asleep—or dormant—and that varies, of course, with different latitudes. A month of activity gives them time to take hold and then they fall asleep, to wake up in the spring ready to go at their work without a setback.

Of course it is not always easy nor possible to time transplanting with such nicety as this, and it is not indeed necessary. This is simply the ideal which the planter has in mind. Trees and shrubs may usually be moved with success at any time when the ground will allow planting, during the dormant season. Large deciduous trees are generally moved in the late autumn,

but evergreens recover from the operation best when it is done in August or early September.

The pruning of deciduous trees at the time of planting is governed entirely by the necessity for keeping the balance between root and branch, with the advantage on the root side, if on either. If one-third of the root system is lost or injured in taking a plant from the ground, one-third of its top must be sacrificed when it is put back. Ordinarily all limbs and branches may be shortened equally, but on trees like the Lombardy poplar, the single definite "leader" should not be cut. This carries the tree up into its characteristic spire-like form, and any interference with it will impair the growth sufficiently to be a detriment to that form, in all likelihood. Shorten the branches only, on such a tree.

All roots that are broken or wounded must be removed with a sharp, even cut, before replanting. All top pruning should of course be done while the tree is lying on the ground and the top within easy reach. Cut just above a bud always—preferably a bud turning away from the bole of the tree, which is called an *outside* bud—and cut on a downward slant so that the raw end may shed water readily.

In removing an entire branch from a tree, at any time and for any purpose, always cut as close as possible to the branch or trunk from which the branch to be removed rises; and *always cut parallel with that branch or trunk.* Never take off a branch by cutting across its axis at right angles to it, and at some distance from the trunk, as so often is done. This leaves a stub over which the bark cannot possibly grow and it will ultimately die and carry decay to the heart of the tree. The close, parallel cut, on the contrary, heals completely, for the bark has only to draw together and cover the flat surface of the wound.

The planting of evergreens is always a more hazardous undertaking than the planting of deciduous trees, for the reason that the foliage of evergreens transpires constantly. This means that it is constantly demanding moisture from the earth, through the tree's network of fibrous roots; and consequently any injury to these roots or any drying out of them is a death-dealing catastrophe.

This is why evergreens are always shipped from nurseries with an earth root-ball, carefully wrapped and sewed up in burlap. Their roots must never be uncovered, even for a minute, during the whole process of digging up, moving and setting out again.

Obviously needle-leaved evergreens cannot be pruned without destroying their from, therefore every bit of root must be guarded carefully, for it means life itself to them. There can be no cutting away at tops to make up for loss at roots. Broad-leaved evergreens however, such as holly, may be stripped of their leaves at planting. This brings about the balance by reducing the leaf action until new root growth is made, just as cutting back does for a deciduous tree.

Some broad-leaved evergreens, however—such as rhododendrons and their family—have their own special predilections too numerous to enter into in a general planting talk. These, by the way, are among the things best planted in the spring according to the consensus of expert opinion.

All shrubs and trees, whether evergreen or deciduous, must have an excavation the full diameter of their root-spread made to receive them. It should be deep enough to bring the tree down into the ground as far as the earth mark on its bole above the roots shows it to have been before; and all the roots should be laid carefully in place by hand, allowing them to take the position and directions which they seem naturally to wish to assume.

In other words every plant should go into the ground exactly as it grows—exactly as it came out of it, as nearly as is possible.

A long round stick—a broom handle, top down, is ideal—should be used to tap the loose earth down among, and under, and around all the fine roots, as it is thrown onto them, after placing the specimen. It should be closely packed around every rootlet, so they may begin drawing their moisture-food from it at once. This does not mean, however, that it requires beating down to stony hardness.

A little water in the bottom of the excavation at the beginning is very good, but guard against using too much, as it is likely to cake mud around the small roots and strangle them. Pour on half a pailful of water when the hole is partly filled in and let it settle completely into the ground before finishing the work. This may take some little time, but give it as long as necessary. It works the earth against the roots as no amount of tamping can—and when it has finally disappeared and the rest of the loose dirt is thrown in and firmed by tramping, you may feel sure that every root is pretty comfortably fixed.

Mulching is essential for all autumn-planted things, and herein lies the secret of failure when autumn planting fails, invariably. The heavy winter mulch must never be applied *until the ground has frozen;* and then it must be applied *at once*, six to ten inches deep. The object of it is to hold the cold in by holding the warmth out, and save the killing alternation of frost and thaw. Remove it in the spring when danger of deep freezing is past.

Pruning of trees other than the shortening done at planting time, should be done just as the sap starts in the spring. With flowering shrubs it is usually better to wait until just after they have finished flowering, for many bear their blossoms on wood of the previous season's growth. If this were cut away all the

bloom of the year would go with it. By waiting until the blossoming period is over, however, one is sure of being on the safe side.

The formation of a lawn is so largely a matter of good pure lawn seed, and keeping out the weeds, that it does not seem necessary to say much about it here. Special mixtures of seed for various places, combined to meet special conditions, are prepared by the best seedsmen and are usually what they claim to be. A goodly proportion of white clover is, to my mind, always desirable, for the tiny blossoms, strewn star-like in the green, are lovely, and its leaf form gives a depth and quality of color to a lawn that is unrivalled.

Ground must be carefully prepared and should be of as even a texture and quality as possible. This is much more important than that it should be rich. Any soil will grow grass if the right kind of seed is chosen, and it is really better if not extremely rich. Strong sure growth rather than quick and luxuriant growth, is the aim in building up a lawn. Sow the seed any time in the spring up to about the tenth of May. Later sowings than this are likely to burn away, if they ever come up at all. It is well, on a newly made lawn, to sow again lightly between the first and middle of September, which gives an opportunity for good growth before winter comes, and fills out bare spots.

Weeds may always be expected in a newly made lawn. They simply must be fought, tooth and nail, until a strong stand of grass is established. Weed seeds are said to lie dormant down in the earth for years; and it certainly seems as if they did lurk around and wait the opportunity to spoil things. The operations of grading and working the soil of course bring them up to the surface where they can germinate.

Some of the most troublesome weeds, however, are fortunately

annuals; if they are not allowed to go to seed, the task of getting rid of them is therefore greatly reduced. But everything that it is possible to get hold of should be pulled up by the roots as well—crab grass and caterpillar grass will come out beautifully after a rain, in great thick mats—for many times these undesirables spread from the roots as well as from their seeds above ground. And some go so far as to take root at the nodes of every branch, too; crab grass is one of these.

Do not fertilize with manure if you hope ever to get rid of weeds. I have known many lawns to be ruined by one winter mulch. Rag weed and plantain are two of the most persistent of lawn enemies, and seeds of both are present by the million in stable manure. They germinate in a twinkling and crowd everything else off the field with the advent of spring.

Watering the lawn, and plants generally, is a problem that sometimes gives the planter much concern, if he has not had much experience. Ordinarily it is folly to undertake hand watering—or hose watering either, for that matter—for it is so nearly a complete failure, as far as actually giving the plants any help is concerned, that it cannot pass as even a fraction of a success. Plants need water where a hose can never put it—down at their fine and hair-like feeding roots. A deluge above ground is of no use to them except as it sinks in and reaches these roots.

It seems at first thought that enough water poured on top of the ground, must sink down to them; but as a matter of fact it sinks in but a very little bit before it is absorbed, by capillary force, through the top soil, spreading out mushroom fashion instead of going down. The grass roots around a tree get the benefit, not the tree; weeds get the benefit not the deep-rooted things that are worth while.

When it rains all over the ground, this spread out absorption is of course not possible. The surface being wet all over, water must go down—which makes the difference between real rain and the make-believe rain sprayed from the end of a hose. Give up the thought of watering anything—unless it may be some especial thing that according to its cultural directions does require watering, and turn attention to tilling. This is the great conserver of moisture. The garden that is well tilled will never suffer during any ordinary drought.

It is as old as the everlasting hills, that phrase "tilling the soil," yet it is only lately that there has been a general reawakening to the great importance of the operation thus expressed. Thorough tillage means ground surface always loosened. This provides a little blanket of earth through which the sun cannot draw the precious water back up again, after the earth has drunk its fill, and the rain has ceased, and he has come out to lord it over everything once more. For that is what happens; the rain comes down and the parched earth takes it in like a sponge, and it sinks down deeper and deeper, as long as it goes on raining. After weeks of rain the ground is wet to a great depth.

As soon as the rain is over, however, and the sun begins to shine, the contrary movement of the moisture at once begins. First that at the top moves up and off into the atmosphere, under the sun's vital pull; then that that is lower down feels the force, and so on until every bit of moisture from the deepest part has traveled back up to the surface and off again—every bit that is, that has not run away in springs and streams to the rivers and the sea.

The only thing in the world that will stop this upward movement is tillage. Tillage does it because it moves the upper particles of earth so far apart that capillary attraction cannot

act and consequently when these loose particles are themselves pumped dry, the moisture below is protected by them. It is a very pretty little process—one among a thousand others so interesting and wonderful, when one stops to examine them, that the greatest wonder is the little comment they provoke.

Garden pests I am not going to talk about. They are too specialized to have any place here—and space is limited. But I believe they will never prove as bad as apprehension paints them, if they are dealt with in the right way. Each state has its agricultural station where they will tell an inquirer very freely and fully just what to do for the special bug that is a-ravaging. The shrubs and trees included in the lists recommended are all exceptionally free from such enemies and will withstand attack, should it be made, better than many others.

Aphids I am tempted to give a paragraph, however—I abominate them so myself—and they are so common. They are the odious little things, soft-bodied, sometimes winged and sometimes not, which appear by the tens of thousands, over night, on almost any plant they may take a notion to. Some are tiny, some are giants, and some are middle size—that is, as aphids. And all sizes hobnob together and crowd and push each other on leaves or along branches until one wonders how there can be so many of anything in the world. Sometimes they are green, sometimes blue-black, sometimes deep purple-red—indeed they are resourceful as to color schemes, for they dye themselves, from the inside, with the juices of the plant they feed upon.

By this you will know that they belong to the vampire class of creation—they are sucking insects and not biters. They must be treated from the outside therefore, for nothing put onto the surface of a leaf will reach their interiors, as their bills are pushed

away down into the plant's tender tissues, pumping at its life fluids. But common soapsuds will kill them, happily. It may take a lot of it and the task of spraying it onto them is by no means an easy one, for they tuck themselves craftily away underneath leaves, which then curl around them and make regular little tents, shedding soapsuds as well as rain.

All plants are liable to suffer from the depredations of these creatures, They are indeed the commonest of the minor insects, living alike on a willow tree sprig or a nasturtium flower, a rose bush or a lettuce head. Some things seem to be ever free from them, but I always have a haunting sense of "no telling"—they may be almost anywhere next time one looks. The main thing is just to look; getting rid of them is not really hard.

It should be done promptly, however, and thoroughly, for they soon take all the life from the thing they attack. Use white Castile or Ivory soap, pour on boiling water and work up a strong foam, then cool until the hands can be borne in it comfortably and use at once. Spray twice, on successive days and then watch and spray again after a day or two perhaps. A solitary individual remaining will mean a bush alive with them again within an unbelievably short time.

As a last word, let me caution all who buy plants to buy of only the recognized first-class nurserymen. Money is wasted when put into plants from any but the very best stock; care of the best stock is expensive and good plants cannot therefore be produced at cheap rates. It is better to buy less, if necessary—to extend the planting of a place over two or three years or more—than to buy inferior specimens, whether the inferiority is in size or quality. Make a point too of buying always from a nursery north, rather than south, of your own latitude.

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